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SCIENCE & PRACTICE OF MEDICINE

1870.

John Skelton

"IN PROCEEDING DOWN THE VISTA OF TIME, LITTLE ELSE THAN FABLE MEETS OUR RESEARCHES ON TOPICS CONNECTED WITH MEDICAL HISTORY."—*E. R. Coxe, M.D.*

THE

SCIENCE AND PRACTICE

OF

MEDICINE.

BY

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PREFACE.

NAAMAN was a great general or captain of the Syrian army, and highly esteemed by the King, his master, for his bravery, but he was a "leper;" that is to say, he suffered from a disease of the skin peculiar to that age. The Israelites, or Jewish Nation, had been conconquered by this man and the rude host which he commanded; nor was there anything the Syrian King could do to compensate him half so acceptable as the cure of his leprosy. That the Syrian physicians had failed was certain, or he would have been cured, for there was nothing wanting so far as wealth and power were concerned.

Now there was a Jewish maid in the service of NAAMAN, which had been brought captive from the land of her fathers, who, upon hearing that her master suffered from this disease, ventured to speak to her mistress. "Would to GOD," she said, "My lord were with the Prophet that is in Samaria, for he would recover him of his leprosy." The simple wish of the Jewish maiden was conveyed by NAAMAN's wife to her lord, and by him to the KING, although with very grave doubts. But the KING said, "Go to! Go, and I will send a letter unto the KING of Israel." So NAAMAN departed, and took with him *ten talents of silver, and six thousand pieces of gold, and ten changes of raiment.* And he brought the letter to the KING OF ISRAEL;" briefly written by the SYRIAN MONARCH, as follows: "I have sent NAAMAN, my servant, to thee, that thou mayest recover him from his leprosy."

The letter frightened the JEWISH KING, for he could not understand it; so he rent his clothes and said, "Am I a GOD, to kill and to make alive, that this man doth send unto me to recover a man of his leprosy? Wherefore, consider, I pray you, and see how he seeketh a quarrel with me."

Now there was a prophet and physician in Israel, called ELISHA, who upon hearing of the monarch's fear, came to him and said, "Wherefore dost thou rend thy clothes? let him come now to me, and he shall know that there is a prophet in Israel." "So NAAMAN came with his horses, and with his chariot, and stood at the door of the house of ELISHA," with all his retinue, and "ten talents of silver, and six thousand pieces of gold." "And ELISHA sent a messenger unto him, saying, GO AND WASH IN JORDAN SEVEN TIMES, AND THY FLESH SHALL COME AGAIN UNTO THEE, AND THOU SHALT BE CLEAN. But NAAMAN was wroth, and went away, and said, "Behold, I thought he would surely come out to me, and stand and call upon the name of the Lord, his GOD, and strike his hand over the place, and recover the leper. Are not ABANA and PHARPAR, rivers of Damascus, better than all the waters of Israel? May I not wash in them and be clean? So he turned and went away in a rage."

Of course, NAAMAN was a wise man and knew everything. Was not Syria a great country, and had they not all things there in perfection? Why came he to a man such as this, to be deceived? —to be compelled to remain, with all his people at the door, and told to WASH IN THE RIVER JORDAN, as if the Syrian physicians would not have ordered washing, had it been of any use. But NAAMAN'S servants were wiser than their master, for, like many others of the same class in our own day, they had seen, it may be, much good done by very simple means; so they came near and said, "My father, if the prophet had bid thee do some great thing, wouldst thou not have done it? How much rather then, when he saith to thee, WASH and be CLEAN." So the great general "went and

dipped himself in the river Jordan, according to the saying of the man of GOD, and his flesh came again like unto the flesh of a little child, and he was clean."

To clearly comprehend the truthfulness of this narrative, we must understand the character of Elisha, and the relation in which he stood to the state. He was a "prophet," that is to say, a minister of GOD, or priest of the national church. A "prophet' among the Israelites, representing in his person both spiritual guide and physician. The custom not of the Jews alone, but of the surrounding nations; hence NAAMAN's surprise. "Behold," he says, "I thought he would come out to me, and stand and call upon the name of the LORD his GOD, and strike his hand over the place." That the laying on of hands for the cure of disease was a practice even among the early Christians is too well known to need comment; and not until Christianity had become corrupted, was the sacred office of "prophet" or minister of GOD, and healer of sick, separated.

That this was the true character of ELISHA is readily seen, and that it was understood in this light by NAAMAN, his servants, the Syrian KING, and his household, is equally clear.

How much the cure of disease depended upon the knowledge and application of hygiene, ELISHA very well knew. How little of this was known to the Syrians is equally clear from the astonishment and anger of NAAMAN when ELISHA prescribed the simple hygienic remedy of bathing. If we reflect, however, upon our own deficiencies in this respect, we shall not be surprised at the credulity and ignorance of the Syrians.

"Hygiene has to do with persons of every rank, of both sexes, of every age. It takes cognizance of the places and houses in which they live; of their occupations and modes of life; of the food they eat, the water they drink, the air they breathe. It follows the child to the school; the labourer and artizan into the field, the mine, the factory, and the workshop; the sick man into the hospital; the

pauper into the workhouse; the lunatic to the asylum: the thief to the prison. It is with the sailor in his ship, the soldier in his barrack; and it accompanies the emigrant to his new home beyond the seas. To all these it makes application of a knowledge remarkable for its amount, and the great variety of sources whence it is derived. To physiology and medicine it is indebted for what it knows of health and disease; it levies large contributions on chemistry, geology, and meteorology; it co-operates with the architect and engineer; its work commends itself to the moralist and divine."* As a branch of the "Science and Practice of Medicine," it must ever hold the primary position; and he who presumes to treat disease without it can know little or nothing of his profession, nor can his treatment, at best, be other than empirical.

To be restored from such a disease to health, half the wealth of Syria would not have been considered too much; the Prophet knew this, and desired to show to the great captain the wonderful resources of his art. He did not presume to work miracles, nor display any kind of grandeur nor worldly wisdom. The Syrian physicians were doubtless all *learned men*, but ELISHA was *humble* and his profession all in all. He did not even "call upon the name of the Lord his GOD, nor strike his hand over the place;" but with faith in the laws of life and the powers of nature, he simply ordered the great Syrian general to "wash and be clean."† ELISHA doubtless knew the habits of the Syrians, for the Jews were an observant people, and the sanitary regulations by which they were governed, stood strikingly and conspicuously out before the surrounding nations, who, sunk in the abjectness of idolatry, were content to wallow in the most revolting superstitions. "Dark to the everwatchful supervision of nature, they sought to avert the diseases under which they suffered by propitiating the interposition of their GODS, and saw not

* W. A. Guy, M.D., Professor of Hygiene, King's College, London.
† Kings, 2nd book, chapter 5.

the hand of omnipotent justice in the great natural laws by which they were governed. The Israelites, on the contrary, under the guardianship of one great JEHOVAH, felt themselves secure so long only as they obeyed them.* ELISHA knew how much health depended upon cleanliness, but NAAMAN, although a great man, was superstitious and ignorant, and expected, as all "ignorant superstitious" people do, his cure to be effected by some miraculous agency. He was convinced of its folly, however, by experience, the most potent of all teachers.

The false Gods,—false prophets and physicians,—of Syria, which had hitherto kept his body diseased and mind in bondage, no longer held him in subjection. That he was compelled by the superstitious customs and laws of his country to submit to its rites and ceremonies is true; but his heart was no longer with them: and "thy servant will henceforth," he says, "offer neither burnt offering nor sacrifice unto other Gods, but unto the LORD. In this thing the LORD pardon thy servant, that when my master goeth into the house of RIMMON to worship there, and he leaneth on my hand, and I bow myself in the house of RIMMON, the LORD pardon thy servant. And he said: Go in peace"

Reader, our "preface" needs no comment: we cannot do other than hope, however, that our efforts to find a scientific base for medicine may not be altogether useless; and that you may be convinced, and be able to say with NAAMAN, "Behold, now I know that there is no GOD in all the earth but in Israel;" or, in other words, There is no safety, either for the preservation of health, or cure of disease, apart from the natural laws which ever control and govern the destinies of mankind.

JOHN SKELTON.

Sept., 1870.

* "Science and Practice of Medicine," page 95.

INTRODUCTION.

"THE HEALTH OF THOUSANDS AND THE LIVES OF NOT A FEW, HAVE BEEN YEARLY SACRIFICED TO THE RAGE FOR PREPARATIONS OF MERCURY, ARSENIC, ZINC, COPPER, AND ALMOST EVERY DELETERIOUS MINERAL UNDER HEAVEN, WHICH ARE DAILY PRESCRIBED, EVEN TO INFANTS, WITH A MOST UNSPARING HAND, AS IF NOTHING BUT KNOWN POISONS COULD BE DEPENDED ON FOR RESTORING THE DIFFERENT ANIMAL FUNCTIONS TO THAT HEALTHY STATE FROM WHICH THEY MAY HAVE ACCIDENTALLY DEVIATED."—*Waller.*

It is little that need be said by way of 'introduction,' but that 'little' should not be unsaid. The student will see, as he proceeds with the work, what we have endeavoured to do, and will doubtless decide the question, as to whether medicine is or is not a science. Opinions are greatly at variance regarding it among the members of the profession, and also with the intelligent and thoughtful of all classes. If it is, as we believe, a positive science, we need offer no excuse for seeking to practically prove it. Whether medicine has ever been understood and worked out as such, it is not our purpose now to enquire, seeing that little or no good could arise from it. On all hands it is admitted that there is plenty of room for improvement; and this is what we have aimed to do. "Barbarous nations," JOHN WESLEY said, "usually assigned medicine a Divine origin; and it was a natural thought that He who had taught it to the very beasts and birds should not be wanting to teach it to man." Intuitively we feel there is much truth in this; and although we may not all see it in the same light, we are nevertheless compelled to admit that there is a capacity or fitness in our nature to adapt itself to that which is equally fitted for it. "The health of thousands, and the lives of not a few," says Waller, "have been yearly sacrificed to the rage for preparations of mercury, arsenic, zinc, copper, and almost every deleterious mineral under heaven, which are daily prescribed, even to infants, with a most unsparing hand, as if nothing but known

poisons could be depended on for restoring the different animal functions to that healthy state from which they may have accidentally deviated."

It will be readily seen that in our endeavours to improve medicine we have avoided everything of a partizan character; indeed, we consider sectarianism only as the precursor or prelude to a higher order of thought; nor are we alone in this. Dr. Garth Wilkinson, for instance, speaking upon the subject, after having cast aside sectarian views, says, "And now I had no jealousies among the servants (agents of healing) because I gave no privileges to any; and I could pick and choose from all regardless of the overweeningness of science, the sectarianism of patients, and the despotism of medical cliques. In short, I essayed to be free in my art; to wait upon Heaven, and to use all ministers and faculties in their degree of service; and FEELING THE BLESSED POWER OF THIS POSITION, IN CONTRADISTINCTION TO THE CRAMP AND WEAKNESS OF MY OLD ONE, I AM IN DUTY BOUND, EVEN AGAINST THE CHARGE OF EGOTISM, TO IMPART IT TO MY FELLOW-MEN." It is a blessed thing to feel at liberty to speak to our fellows and to know that the feelings are shared by others; and, as Sir John Forbes said, "It is the duty of an honest mind, on attaining conviction of an error, to abandon and expose it, even although the truth that is sure to succeed it may, as yet, be seen only darkly, or be entirely hidden." Duty and interest, however, are too often opposed, and where this is the case, the former is generally held in abeyance. It is the conflict of interest, rather than opinion, which prevents us from yielding to reason and truth, hence we remain under great evils, all but quiescent, until the balance of equity is destroyed, and change can no longer be resisted. It is folly to assume that honor and intelligence are independent of interest, the experience of the world is against it, and every day brings with it the contradiction. That there can be no ultimate advantage in error is true, but where we are deluded by prejudice, ignorance, and cupidity, we lose sight of the substance, and grasp only the shadow. What, for instance of all human good, can be compared with health, or what science with that of medicine? Ask the languishing rich man, while suffering from disease, what estimate he puts upon them? That wealth is of great consequence to him is true, but weighed in the balance against health, what is it?

Deeply interested in the great question of healthy life as men are,

they nevertheless live on and take no part nor parcel in the question,—think nothing about it,—ignorantly assume that it is no business of theirs, and pay the penalty, in many cases, with the loss of health and life. "The want of this knowledge has been one of the chief causes of the overthrow of states and kingdoms,—is now operating powerfully on the constitution of the people of England, and if not attended to will involve us in the same vortex of destruction as other nations which have gone before us." Nor is there any exaggeration in this statement, for the health of the people stands in the same relation to a nation that it does to an individual. It is of the greatest importance, therefore, that the science of human life should be understood, and that medicine should be practiced agreeably with the great natural conditions upon which it is based. The writer from whom we have quoted, Dr. Garth Wilkinson, says, "Medicine is not a science, although nourished and fed, perhaps, out of all sciences. *Medicine is an art, and an art reposes upon a gift of* God, and according to the intensity of that gift it is called genius, and according to its native and willing openness to the power above it, it becomes inspiration." This, we fancy, is at best a very feeble attempt to distinguish *science* from *art*, and altogether unsatisfactory, because it leaves the mind where it found it, in a complete state of confusion. What 'science' is Dr. Garth Wilkinson has not told us. "The intensity of 'art,' which is a gift of God," he says, is called "genius," which we suppose means *quickness of perception and ready successful action*. How these faculties of the mind can be called 'art' we are at a loss to conceive. That they may, under extremely favourable conditions greatly outstrip ordinary gifts, we readily admit, for extremes of genius are not less common than other 'extremes,' but in no case have they anything to do with 'art.' Science, as we conceive it, is 'art' built upon 'nature,' or, as old Dr. Hooker has it, "No science doth make known the principles whereon it buildeth, but they are always taken as plain and manifest in themselves, or as proved or granted already, some former knowledge having made them evident;" that is to say, the foundation upon which we construct a 'science' exists already in nature as a great primary principle, waiting only to be understood and applied. If we know nothing of this, however, and our necessities and interests compel us to adopt *systems* without this knowledge, then the 'systems' which we build upon art vary with the changes and fashions of mankind; but when the mind is

sufficiently advanced to understand first principles, 'systems' and 'art' become 'science.' But, it may be asked, do you suppose medicine, which has always been ephemeral in theory and uncertain in practice, can ever become a positive science? We reply, Yes! most certainly: that is to say, "Positive so far as it relates to nature. Navigation, architecture, agriculture, and a host of other sciences, we accept as 'positive,' but it does not imply that our ships, and houses, and fields, must all be worked or built after the same models. It is because we have not learnt to distinguish 'science' from 'art' that we blunder on in the old beaten path. Had we done so, professors of medicine could not have been for so many ages led astray by the theories which have enslaved them, and which in spite of the progress made in other arts and sciences, sit like an incubus upon their shoulders, blighting with their foul breath the best efforts of those who labour to emancipate them; confining within the narrow circle of a class, the study and practice, and making the science of healing to depend upon pounds, shillings, and pence. But what would you give us, it might be asked, instead of that which we have? Replace the unnatural with the natural, we reply, or come back again to first principles. Medicine, John Wesley told us, and truly too, was founded upon experiment. "The European, as well as the American, said to his neighbour, Are you sick? Drink the juice of this herb, and your sickness will be at an end. Are you in a burning heat? Leap into that river, and then sweat until you are well. Has the snake bitten you? Chew and apply that root, and the poison will not hurt you. Thus ancient men, having a little experience joined with common sense and common humanity, cured both themselves and their neighbours of most of the distempers to which every nation was subject. But in process of time, men of a philosophical turn were not satisfied with this. They began to enquire how they might account for these things; how such medicines wrought such effects. They examined the human body and all its parts; the nature of the *flesh*, *veins*, *arteries*, *nerves*, the structure of the *brain*, *heart*, *lungs*, *stomach*, and *bowels*; with the springs of the several animal functions. They explored the several kinds of animal and mineral, as well as vegetable substances; hence the whole order of medicine which had obtained to that time came gradually to be inverted. Men of learning began to set experience aside, to build upon hypothesis, to form theories of diseases

and their cure, and to substitute these in the place of experiment. As theories increased, simple medicines were more and more disregarded and disused, till, in the course of years, the greater part of them were forgotten, at least in the politer nations. In the room of these, abundance of new ones were introduced by reasoning speculative men, and those being more and more difficult to be applied, as being more remote from common observation. Hence rules for the application of those, and medical books were immensely multiplied; till at length medicine became an abstruse science, quite beyond the reach of ordinary men. Physicians now began to be held in admiration, as persons who were something more than human; and profit attended their employ as well as honour; so that they had now two weighty reasons for keeping the bulk of mankind at a distance, that they might not pry into the mysteries of the profession. To this end they increased those difficulties by design, which began in a manner by accident. They filled their writings with abundance of technical terms, utterly unintelligible to plain men; affected to deliver their rules, and reason upon them in an abstruse philosophical manner. They represented the critical knowledge of anatomy (and what not? some of them insisting on that of astronomy and astrology too) as necessary previous to understanding the art of healing. *Those who understood only how to restore the sick to health they branded as empirics.* They introduced into practice abundance of compound medicines, consisting of so many ingredients, that it was scarcely possible for common people to know which it was that wrought a cure,—abundance of exotics, neither the nature nor names of which their own countrymen understood,—of chemicals, such as they neither had skill, nor fortune, nor time to prepare;—yea, and of dangerous ones, such as could not be used without hazarding life, but by the advice of a physician. And thus their gain and honour were both secured. A vast majority of mankind were thus utterly cut off from helping either themselves or their neighbours, or of even daring to attempt it." Such was the testimony of this excellent man. "Yet there have not been wanting from time to time," he says, "some lovers of mankind who have tried to restore it to its original state." Nor must we except himself. He saw, however, that the task of accomplishing the religious reform for which he laid himself out required the whole of his labour, and doubtless felt it all but impossible to incorporate medical reform with it. He knew that healing the sick was a

part of the great Christian mission transmitted by Christ to the Church, and would gladly have devoted himself to it, but the task was too great. It must and will be done, however, for it is not possible that mystery and delusion shall usurp the place of science for ever, or prevent the public from enquiring into a subject which is daily pressing itself upon it, and which at every moment becomes a matter of life or death. It will be seen by reference to the early chapters of our work that we have endeavoured to unravel the mystery which has hitherto enveloped medicine, whilst the body of the work is devoted to the practical development of a purely natural practice; in fact, we have essayed to raise medicine to a science, and make it, as a consequence, understandable; to strip it of the learned jargon with which it has been foolishly invested, and make it amenable to ordinary minds. As regards its acceptance, and the means of working it out, this, too, we are hopeful of accomplishing. Not that we expect our views to be altogether favourably received, but that having laid the foundation for a higher order of thought, prepared the the soil, and committed the germ to it, we wait upon time to complete the work, and herein is the difference between the past and present. Good men, it is true, have not been wanting in the 'past,' but their efforts were directed to the conversion of medical professors; they assumed, with the best intentions, that the art which they desired to improve could be best done by this means. Corporate bodies never have, however, nor never can reform themselves, and any improvement that may be made must come from without. For this reason we prefer to be for the present ignored, rather than assist to perpetuate a policy and practice injurious alike to the profession and the public. The objections that will be raised we are well prepared for, having already experienced them; but they are too weak to affect us, and the work of progress goes on in spite of them. That medicine has been obscured by superstition, and darkened by cupidity, is true; true it is, however, that it has been wonderfully preserved, for in some form or other it has existed in all ages. What is the "medicine man" of the savage but the representative of a principle; and what is the difference between him,—wise with the mummeries, charms, incantations and mysteries of tradition,—and the most finished physician of our modern school? Nothing. They exist as a living fact; not independently of human necessity, but as part of it; and pointing to the one great object of the individual throughout

every phase of his being—viz., the desire to avoid suffering. *Medicine is a science, therefore, because suffering is a necessity*, and so far as the question relates to the administration of positive substances, we say it is simply a graduated scale of organisms, holding the same relation to life in an abnormal or diseased state, as food does in a healthy state. There is no mystery in it; like all science, it is simple, and the reason why we look upon it with such wonder is because we have sacrificed our instincts, and left our reason uncultivated. To construct a science, we must begin with NATURE; let us return, therefore, to first principles. Instinct, tradition, reason, experience—everything, in fact, points to one great universal source; and how much more natural is it to look to the field and the forest for plants and roots to cure our diseases, than to dig into the bowels of the earth for minerals and metals, which prove poisonous and destructive, even in obtaining them; and much more so, after having been subjected to chemical processes. Both the untutored savage and beast are taught, by instinct, to use the organisms scattered so richly around them, to relieve their diseases, and those who have travelled among the natives of all countries testify to these facts. The Indians of North America know how to treat their complaints, both in physic, surgery, and midwifery, as related by Count La Salle, Washington Irving, Catlin, Lewis, Clarke, and numerous others. It is the same in the East Indies, South Sea Islands, Patagonia, Africa, &c.

BOSMAN, in his description of the coast of Guinea, speaking of the different herbs employed by the natives, says: "I have seen several of my countrymen cured by these medicines, when our own physicians were at a loss what to do." Again, he says, "I have several times observed the negroes cure such extensive and dangerous wounds with these herbs, that I have looked on with amazement."

LE VAILLENT, also, in his travels into the interior of Africa, gives an interesting account of vegetable remedies by the savages of that country. Upon one occasion they cured him of a quinsy, after he had given up his case as hopeless. His tongue and throat were so swelled that he could only speak by signs; and his breathing became so much impeded that he expected to be suffocated. In the meantime, he was visited by a party of savages, who, feeling an interest in his situation, pledged themselves to cure him. He had at this time despaired of his life for nearly a week. The remedy was a hot local application of a certain herb. It was also to be used as a gargle.

The poultice was renewed several times in the night, and a gargle still more frequently repeated. When day appeared he was greatly eased; he could breathe more freely, and the swelling and inflammation of the throat were abated. By the third day he found himself cured. He then went out to examine the plant by which he had been restored to health. "Nothing in the country," says he, "was more common; it grew all around the camp, and was to be met with in every direction." He describes it as a species of sage, about two feet high, with a pleasant smell, and a balsamic taste.

Le Vaillent, abounding in gratitude, no doubt, for his unexpected cure, and regretting that so few of the plants which cover the surface of the globe should be known, says: "If there be any medicines of importance to us we have been almost always indebted to savages, or even to beasts, for their discovery."

"The art of healing among the Sumatrans," says Marsden, in his history of that country, "consists almost entirely in the application of simples, in the virtues of which they are surprisingly skilled. All the old men and women in the country are physicians, and their rewards depend upon their success." Marsden also says: "The Sumatrans have a degree of botanical knowledge that surprises an European. They are, in general, and at a very early age, acquainted not only with the names, but the qualities and properties of every shrub and herb among the exuberant variety with which their country abounds."

The few quotations already made are sufficient to prove that even savages are better acquainted with "practical medicine" than we are; and in order to give a little more weight to this truth, we now add the testimony of others.

Sir John Pringle says: "What those circumstances may have been, that by their peculiar agency served to lay the first foundation of physic in the world, it were now in vain to inquire; whatever they were, however,—whether experiments blindly undertaken under the anguish and pressure of disease,—discoveries resulting from accident, or, as some have affirmed, *observations made by men upon the instincts of the inferior animals*,—certain it is, that the art of healing is of a very ancient date, and appears to have existed in times and countries the most remote from civilization. No fact in history is better attested than this:—*A proficiency in the arts of practical physic, far beyond the scope of their other humble attainments, ever forms a curious but unfail-*

ing fact in the character of savages." To this Dr. Miller adds: "*Amidst the general barbarism of America, its acquirements in practical physic were most remarkable.* The navigators who first visited their shores describe the state of its medicine in terms of admiration, and assert in one voice that not only had the original inhabitants *acquainted themselves with a copious store of simples*, but even understood the art of applying them with the greatest skill; but the *best proof of the medical skill of the natives is to be deduced from another circumstance less liable to error*—viz., the frequent adoption of their remedies by the practitioners of more polished nations. The obligations of medicine to this source may be pronounced at once *numerous* and *important;* for some of the choicest treasures of the *Materia Medica*, it is well known, practitioners of the Old World are *entirely indebted* to the New; and the more obstinate diseases of civilized Europe have frequently yielded to *powerful simples* culled by savage hands amidst the wilds of their native forests."

To these quotations we might add many others, both from the moderns and ancients. We might, in fact, prove not only the "septic" powers of plants upon the living, but their immense influence over the dead body. To whom are we indebted for those rare preservations called "mummies," now in the British Museum, but to the botanical skill of the Egyptians? It was their knowledge of plants that gave them this power, which, as Thomas Castle, F.L.S., M.R.C.S., says, "was held in high estimation, not only as subservient to medicine, but was treasured up as a rich legacy to be handed down from father to son." Or we might quote the opinion of Dr. Bostock, and show that the success of the greatest physician that the world ever produced was due to his knowledge of plants. We speak of Hippocrates, the Father of Medicine, whose "descriptions of disease, after all the revolutions of customs and habits, both physical and moral, are still found to be correct representations of nature, while his indications of cure, and the treatment derived from them, are rational and practicable; and when we reflect that at this period anatomy was scarcely practised, physiology almost unknown, and the *Materia Medica* confined chiefly to vegetable substances, and these indigenous to Greece and the neighbouring countries, our admiration of the skill and talent of Hippocrates will be still further increased."

Let it not be presumed that in our admiration for vegetable substances we lose sight of hygienic appliances, that we ignore any

rational means experience has proved beneficial, or dogmatically set up our own particular views to the condemnation of all others. We confess to be simply a truth seeker, and accept whatever reason and experience prove to be good. Medicine, considered as a science, knows nothing of creeds; identifies itself with no party strife, nor scholastic dogmas; admits no limit nor geographical boundary to its investigations; it is, we have said, "from all time, for all time;" and as its professors we hold our tenure or right, faithfully, no longer than we apply it successfully to the alleviation of the sufferings of our fellow-creatures; and this can never be done where doubt or uncertainty exist regarding first principles.

But shall we rest our faith in scientific medicine upon such simple facts as these, it may be asked? We reply, certainly not; but as evidence in its favour, we think it presumptive of some great natural truth lying at its base. "That such a simple practice," superficial thinkers say, "may do for aboriginal tribes we readily admit, but the complicated diseases that grow out of civilization require altogether a different method of treatment." Such are the admissions generally made, and we admit they are not without force, for savages and civilized men have different habits and customs, and as a consequence their diseases vary in intensity and character. That the food of civilized man is unfitted for the savage we readily admit; but however much it may differ, the principle is in no way changed, habit and custom have not, cannot, alter it. Food must be organic. The inorganic constituents of the human body are the same among all tribes and nations, and nature, ever uniform, cannot supply them apart from the economy by which her operations are carried on. WHITLAW, writing of his travels in America, says: "Having had many opportunities of witnessing the most extraordinary changes that take place among the extensive forests in that country, I have seen scores of miles of the largest and finest timber dying for want of nourishment, having completely exhausted the soil. I instance the immense forests of *pine* or *fir*. The *pine* absorbs all the component substances from the soil except *sand* and *iron*, neither of which enters into its composition, as the roots of the *pine* run horizontally along the surface, and the absorbent roots are so constructed that they will not take up *iron* or *sand*. The *iron* is generally found from two to four feet deep, and the *sand* above. The earthy matters are so completely exhausted, and the *sand* left so pure, that it would run in a sand-glass. The

timber of the *pine* is soft, and highly combustible; and when they have died a natural death for the want of nourishment, the trees that take their place are called the *quercus ilicifolia*, or "scrub oak," a low shrub, whose roots penetrate through the sand until they reach the hard tily bottom, which is strongly impregnated with iron; the powerful absorbing roots penetrate deep into this bottom, where there is considerable moisture, which assists in decomposing the soil and making it more fit for being absorbed. The plant is powerfully saturated with *sand* and *iron*. The leaves and acorns falling and going into a state of decomposition, mingling with the *sand*, the surface becomes immediately covered with *bromus*, or broom-grass, and other grasses. Such large quantities of *silex*, or "sand" enters into their composition, and so freely are they coated with it, that by taking two handsful of it and striking them against each other in a dark room, they appear like a blaze of fire. Next the different species of *hypericum* will appear; they are powerful absorbers of *iron*. I have some in my possession brought from such locality, almost like the rust of *iron*. The various plants that now cover the surface by their absorption and decayed leaves soon convert the whole of the surface into a yellow loam, by combining the *sand* and *iron*. The largest oaks now take the place of the scrub oak, the soil being rendered more compact, so that it may support their stately trunks."

It will be seen from these remarks what the economy of nature is as regards vegetable life, and that, too, without any elaborate disquisition by way of proof, for science is so exquisitely simple that her pages may be read by all.

Of the physiology of life we need say little beyond that which has been said over and over again. The blood holds all the constituents of the body in solution, and if the constitution is sound, so long as the stomach is supplied with proper food, the lungs with pure air, and the general conditions of health are attended to, the system maintains its normal state; but whenever these are deficient, or not supplied, disease follows as a consequence. All the solid constituents of which our bodies are composed, elaborated or prepared in the organic kingdoms, and, agreeably with the natural economy, dissolved, digestion assimilated, and deposited in the different organs or parts to supply the waste which is continually passing off,—sustain the system, enable it to perform its different functions, and transmit its like. Animals are made up of the elements existing in vegetables.

There is no other source except the two compound elements, AIR and WATER; and we can only have what these give us, for no matter is ever created or destroyed. In all the phenomena around us there are only changes of form and relation. We consume, it is true, the flesh of animals, but the elements are the same as those of the vegetable.

Man begins his existence as a microscopic vesicle of almost pure and transparent water, and the *proximate* constituents of his body are divided into the mineral and organic. The mineral constituents useful by their physical properties are,—

1*st*. Water composed of *hydrogen* and *oxygen*. It constitutes about nine-tenths of the body by weight.

2*nd*. *Phosphate of lime*, which forms the solid matter of bone.

3*rd*. *Carbonate of lime*. Also in bone.

4*th*. *Phosphate of magnesia*. In small proportions combined with phosphate of lime.

5*th*. *Hydrochloric acid*. A constituent of common salt, combined with gastric juice.

6*th*. *Chloride of sodium*. Common salt, in combination with blood, gastric juice, bone, urine, and tears.

7*th*. *Carbonate of soda*. In animal ashes.

8*th*. *Phosphate of soda*. In blood, lymph, bile, &c.

9*th*. *Iron*. In the colouring matter of the blood, hair, black pigment of the eye, &c.

The *incidental* constituents of the human body are *chloride of potassium*, *alkaline sulphates*, *carbonate of magnesia*, *manganese*, *silica*, *albumina*, with slight traces of copper, &c., &c.

The *organic* constituents are divided into two groups, those which contain *nitrogen* and those which are destitute of that element.

Protein is the name given to the nitrogenized substances which enter into the composition of the most important animal tissues.

Albumen exists in the serum of the blood, *fibrin* in the fibrous portion of the blood, *casein* in milk, &c., &c. The whole of which are composed of the same ultimate principles—viz., *carbon*, *oxygen*, *hydrogen*, and *nitrogen*, united in similar proportions. *Fibrin*, *casein*, and *albumen*, all exist in vegetables; are identical with the same elements found in animal tissues, and, as we have already said, "the blood holds all these constituents in solution."

Healthy human blood contains in 1,000 parts :—

Water	790·0	Cruorin†	1·0
Fibrin	0·9	Carbonate of soda	1·0
Albumen	54·0	Chloride of sodium	4·0
Hæmatin*	133·4	Chloride of potassium	2·0
Oxide of iron	0·7	Phosphate of lime & magnesia	0·5
Phosphorized fat	8·2	Carbonate of lime	1·3

The blood, beside the above, contains *sulphur*, *phosphorus*, and several other substances not introduced in the above.

No organized body, whether mineral or vegetable, is purely simple, but all more or less partake of compound qualities, and the mineral or inorganic must be first organically elaborated with vegetable life before it can be assimilated with animal tissue.‡

Vegetables absorb the inorganic substances of the soil upon which they grow, and whenever the supply ceases they migrate or die, and give place to others. From an analysis made by MULDER, we find a common cup of tea to contain *volatile oil*, *chlorophile*, *wax*, *resin*, *gum*, *tannin*, *theine*, *sulphur*, *phosphorus*, *oxide of iron*, *phosphate of lime*, &c., &c., and many of the most valuable medicines, such as the *yellow dock*, *sarsaparilla*, *wild cherry bark*, *bayberry*, *rhubarb*, *elecampane*, *bistort*, *crane's bill*, *oak bark*, *polly poddy*, *scrofularia*, *Saint John's wort*, *broom*, *cardus benedictus*, *scammony*, *xanthoxylin*, *podophyllum*, *leptandrin*, *thein*, &c., &c.,—contain at least from four to five distinct metals, such as *iron*, *potassium*, *sodium*, *calcium*, *magnesium*, *aluminum*, &c., &c. These are the decided revelations of positive science, the knowledge of which opens up to us a world of new ideas.

It will be readily understood why we refuse to sanction the use of crude metals and minerals. The Creator has given them their proper place in the economy of nature, and science can know nothing of them apart from this.

It is the application of labour and skill to the innate capacities of the primitive organisms indigenous to different climates, and the earth of which they and mankind form a part, that mark the boundaries of human knowledge and progress; and whilst the cereals, fruits, tubers, and all the various vegetable and animal organisms necessary for the sustenance and reproduction of human life, have been developed to a perfection hitherto unknown, medicine, as forming a necessary part of that production, has been all but ignored.

* Colouring matter of the blood.

† A protein compound resulting from albumen and fibrin.

‡ See quotation from LIEBIG, page 37.

Of the antiseptic qualities of the earth we need say but little; we know, however, that vegetable and animal matter in a state of decay give off poisonous gases which, by destroying the balance of the atmosphere, induce or set up epidemic and other diseases. Nature asks no questions concerning human knowledge, nor makes allowance for ignorance. Her language must be read in her laws. "I tolerate no waste," she says; "bring all used-up, exhausted matter back to me, that I may transform it into new life. I HAVE SO WILLED THAT LIFE, HEALTH, DISEASE, and DEATH shall be governed by fixed laws. READ THEM AND LIVE." It is folly to shut our eyes to these facts, for we know by daily and hourly experience that the virulent and offensive poisons which arise from the decomposition of animal and vegetable substances are the parent of disease and death, but that when returned to the earth they become the progenitors of health and life, and that thus transformed they possess whatever dietetic or medicinal properties design or accident may have given them. Who, then, whose mind is untrammelled by prejudice, or unfettered by interest, can refuse to admit these astounding truths? and shall we be so presumptuous as to deny that the earth, which transforms *death* to *life*, and the most destructive poisons into dietetic and medicinal substances may not give to the simple herb antiseptic or curative powers? Why nature works her marvellous changes through such agencies we know not, but that she does, is all we do, or ever can know. To presume to argue the question further would be altogether superfluous. "Medicine," we have said, "is a science because suffering is a necessity." WERE IT NOT SO, CREATION WOULD BE ONE HUGE ERROR.*

JOHN SKELTON.

September, 1870.

* It must not be presumed that in speaking of medicine as a science, we overlook the fact that nature tolerates certain deviations. We know men have been found so physically and intellectually low as to feed upon clay, or at least upon "fat unctuous earth," but the exception proves rather than ignores the rule; nor will it be denied that whatever we have even now of positive medical value is organic. Experience compels us, in spite of our rage for metals and minerals, to admit this truth; hence it is that in every age, however barbarous or civilized, one uniform fact presents itself—organic or herbal medication has ever held its own. What but the presumption that a great science lay at its base could have saved every herbal work of note, from those days of Solomon down to old Drs. Turner, Gerrard, Parkinson, Culpepper, Hill, Cole, Waller, Meyrick, and a host of others too numerous to name? Why, we ask, is it that these works are so rarely found on old book stalls, whilst your modern are sold by the ton annually as waste paper? The answer is obvious. The former have been found useful, the latter all but worthless.

GLOSSARY.

Abdomen.—The belly.
Abscess.—A tumor containing pus, or a collection of matter.
Abnormal.—Unnatural; irregular.
Absorbent.—A vessel that absorbs or takes up fluids.
Acid.—Sour; that which effervesces with alkalies.
Acrid.—Sharp, burning or pungent.
Accoucheur.—A male midwife, or one that attends in parturition.
Acute.—Diseases which are of short duration, but attended with violent symptoms; opposed to *chronic.*
Albumen.—A viscid animal or vegetable principle, resembling the white of eggs.
Alkali.—A substance which is capable of uniting with acids and destroying their acidity: among the most common are potash, soda, &c.
Alterative.—A medicine capable of changing the condition of the system without producing any sensible increase of the evacuations.
Alveolar.—The sockets for the teeth.
Alvine.—Belonging to the intestines.
Amenorrhœa.—Obstruction of the menses.
Anasarca.—Dropsy of the cellular membrane.
Anastamose.—Joining together.
Annual.—Yearly.
Anodyne.—That which relieves pain.
Antacid.—Substances which neutralize acids: some of the most common are soda, potash, &c.
Antiseptics.—Medicines that guard against mortification.
Anthelmintics.—Medicines which destroy or expel worms.
Antilithics.—Substances which guard against, or remove urinary calculi or gravel.
Antispasmodics.—Medicines which relieve cramps or spasms.
Aperient.—That which gently opens the bowels.
Apex.—The top or summit.
Articulated.—Jointed.
Aroma.—Fragrance; scent.
Aromatic.—Sweet-scented, fragrant.
Ascites.—Dropsy of the belly.
Assimilation.—The conversion of food into nutriment.
Astringent.—That which corrects looseness and debility by rendering the solids denser and firmer, known by its puckering effects on the mouth.
Atony.—A state of inactivity.
Atrophy.—A wasting, without any sensible discharge.
Bronchi.—The air cells of the lungs.
Cachexia.—A general weak, relaxed, and disordered state, without fever.
Cadaverous.—Death-like; having the appearance of a dead human body; wan; ghastly; pale.
Calculi.—Small stones found in the cavities of the body, as in the urinary and biliary cysts.
Capillary.—Hair-like; a term used to designate those small vessels found between the termination of the arteries and the commencement of the veins, and in which the change from arterial to venous blood is effected.
Carminative.—That which expels wind.
Cartilage.—Gristle; a white semi-bony substance.
Catamenia.—The monthly evacuation peculiar to the female sex; the menses.
Catheter.—A small tube designed for drawing the urine.
Cautery.—A burning application.
Cellular.—Containing cells or cavities.
Cerebellum.—The lesser brain.
Cerebrum.—The brain, or anterior and larger portion of the soft mass within the skull.
Chronic.—A term applied to diseases which are of long continuance, and usually without much fever.
Cicatrix.—The seam, scar, or mark remaining after the healing of a wound or ulcer.

Coma.— *Comatose* } Strong propensity to sleep.

Combustion.—Rapid oxydation, or the combination of oxygen with other elementary bodies; fire.

Coagulation.—A thickening or formation of fluids into a more dense or solid condition, as the curdling of milk, &c.

Coalesce.—To unite, to join into one, to run together.

Congestion.—A preternatural collection of blood or other fluids; thus we speak of a congestion in a part when the vessels are much crowded or over distended.

Concave.—Cup-like, hollowed.

Concrete.—Collected, united into a solid form.

Confluent.—Running together, meeting in their course.

Congenital.—Born together; a disease or defect is said to be congenital when existing from the time of birth.

Constipation.—Costiveness; a confined state of the bowels.

Contagious.—Catching; capable of being communicated.

Convalescence.—The state or condition of recovery.

Corpse.—The dead body.

Coryza.—An increased discharge of mucus from the nose.

Crassamentum.—The red particles of the blood.

Cutaneous.—Belonging to the skin.

Cutis.—The skin.

Cutis vera.—The true or inner skin.

Decarbonize.—The act of giving off carbon.

Deglutition.—Swallowing.

Delirium.—Alienation of mind; craziness.

Demulcents.—Soothing, lubricating, and mucilaginous applications.

Depletion.—The act of emptying, particularly the removal of the blood, as by venesection.

Diagnosis.—The distinguishing of particular diseases; the symptoms by which any disease is known from all others are called its diagnostics, or diagnostic symptoms.

Diaphoresis.—Perspiration.

Diaphoretic.—That which, being taken internally, produces diaphoresis, or perspiration.

Diaphragm.—The midriff or muscular division between the chest and abdomen. It assists in respiration.

Diathesis.—Condition of the body, as the inflammatory, &c.

Discuss.—To scatter.

Desquamation.—Scaling off.

Dispnœa.—Oppressed breathing.

Duodenum.—The first portion of the intestines; the part in which the food becomes mixed with the bile.

Effluvia.—Exhalations from bodies in a state of decomposition, as from carcasses, &c.

Emaciation.—Leanness; a falling away of the flesh.

Emesis.—Vomiting.

Emetic.—A medicine which excites vomiting.

Emmenagogue.—That which tends to promote the menstrual discharge.

Emollient.—That which has a tendency to render parts more soft or pliable, as well as to relieve irritation and inflammation.

Enema.—An injection.

Enteritis.—Inflammation of the bowels.

Entozoa.—Worms.

Epidemic.—A disease of general prevalence.

Epidermis.—The cuticle, scarf or outer skin.

Epigastric.—From 'epi,' *upon*, and 'gastricus,' *stomach*, i.e., upon the stomach; that division of the abdomen immediately in front of the stomach.

Eructation.—The ejection or raising of wind from the stomach.

Erysipelas.—Inflammation of the skin; St. Anthony's fire.

Eschar.—The dead substance produced by applying caustic, &c.

Evacuants.—Medicines that promote the excretions of the body.

Exacerbation.—An increase in the violence of symptoms or disease.

Exanthema.— *Exanthemata.*— } Acute eruptive disease.

Excitants.—Stimulants.

Excoriate.—To remove the skin by means of acrid substances; to gall.

Excrescence.—A preternatural tumour growing on the body, as a wart, polypus, &c.

Excretion.—Matter thrown from the surface; a collection of matter on the surface.

Exotic.—Plants are called "exotic" when brought from foreign countries

Exostosis.—An unnatural bony extuberance.

Expectorant.—That which facilitates discharges from the lungs.

Expiration.—The act of breathing out.

Extraneous.—Foreign; without; not intrinsic.

Extravasation.—Effusion; a forcing out of the vessels.

Exude.—The act of discharging through the pores of the skin; emitting from the surface.

Fæces.—The alvine excretions; stool; motions.

Fauces.—The back of the mouth.

Febrile.—Pertaining to fever.

Febris.—Fever.

Fetid.—Having an offensive, strong, or rancid smell.

Fibrin.—A peculiar organic element or compound of animals and vegetables; it chiefly forms the fleshy parts of animals.

Fibrous.—Having fibres; in botany a root is said to be fibrous when it has many small radicals.

Flatulency.—Wind in the stomach.

Flatus.—Wind.

Fomentation.—The act of applying warm liquids to parts by means of flannels, &c.

Fungus.—Morbid growths of flesh.

Ganglion.—A knot; in anatomy the term is applied to certain natural knot-like enlargements that occur in the nerves.

Gangrene.—Mortification; the first stage of.

Gastric.— } Pertaining to the sto-
Gastro.— } mach.

Gastritis.—Inflammation of the stomach.

Gelatin.—One of the primary compounds of animal and vegetable bodies, soluble in water, but not in alcohol. When dissolved in water it thickens; on cooling, into a well-known tremulous elastic substance called jelly.

Glairy.—Resembling the white of an egg; of a viscid, transparent appearance.

Hæmaturia.—The voiding of blood with the urine.

Hæmoptysis.—A spitting of blood; bleeding from the lungs.

Hæmorrhage.—Violent flow of blood.

Hæmorrhoids.—Piles.

Hepatic.—Pertaining to the liver.

Hepatitis.—Inflammation of the liver.

Herbaceous.—Pertaining to herbs.

Hereditary.—That which has descended from an ancestor.

Hernia.—Rupture.

Herpes.—Tetter.

Humours.—Liquids; the fluids of the body, as the blood, bile, and humours of the eye.

Hydragogue.—A medicine that causes watery discharges.

Hydrocardia.—Dropsy of the heart.

Hydrocele.—Dropsy of the scrotum.

Hydrocephalis.—Dropsy of the brain.

Hydrothorax.—Dropsy of the chest.

Hydrops.—Dropsy.

Hydrophobia.—Rabidness; madness from the bite of rabid animals.

Hygiene.—A plan of restoring or preserving health without the use of medicine, as by dieting and proper exercise.

Hyperæmia.—Fulness of the blood-vessels.

Hypertrophy.—Enlargement.

Hypochondriasis. } Vapours; lowness
Hypochondria.— } of spirits; the blues or horrors.

Ichor.—A sanious matter flowing from ulcers.

Icterus.—The jaundice.

Idiopathic.—A disease is said to be idiopathic when it has an independent origin, that is, one that is not symptomatic.

Idiosyncrasy.—Peculiarity of disposition that renders the person liable to certain diseases, which other persons not having, would escape.

Ileum.—The last or lower portion of the small intestines.

Indicate.—To point out.

Indication.—Course pointed out; an object to be accomplished in the cure of disease; a course to be pursued in the treatment of a case.

Indurated.—Hardened.

Infection.—Contagion; the principle or cause of a disease.

Inflated.—Filled with wind; in botany the term is applied to capsules or vesicles which are hollow, or naturally contain air.

Infusion.—A tea; prepared by infusing a medical substance in a fluid.

Ingesta.—The substances received into the stomach.

Ingestion.—The act of receiving into the stomach.

Inorganic.—Not in an organized state.

———'*itis.*'—The termination '*itis*' indicates inflammation; whenever, therefore, the name of any organ terminates in this way, that organ is to be understood to be in a state of inflammation; thus the Latin name of the stomach is *gastricus*, hence inflammation of the stomach is alled *gastritis;* whilst that of the intestines is called *enteritis*, &c.

Jejunum.—The second portion of the small intestines, so called because it is usually found empty.

Labia pudendi.—External lips of the female organs of generation.

Laceration.—The condition of being torn; a wound produced by the tearing of the flesh.

Larynx.—The cartilaginous cavity situated behind the tongue at the commencement of the windpipe.

Lateritius.—Brick-like; like the dust of brick.

Lepra.—The leprosy.

Lesion.—An injury or wound.

Ligament.—Anything that ties; in anatomy, a strong firm band by which the bones are joined together.

Ligate.—To tie or bind.

Ligature.—The thread or cord by which anything is tied.

Livid.—Black and blue; lead-coloured; purple.

Lymph.—The pale rose-coloured fluid contained in the lymphatics.

Lymphatics.—A very delicate set of vessels found in abundance in most parts of the body; they absorb and carry the lymph.

Mania.—Madness, insanity.

Meninges.—The two membranes that envelop the brain; the *dura-mater* and *pia-mater*.

Metamorphosis.—A change of form, relation, or shape; sometimes it means the matter or substance changed.

Metastasis.—A translation or change to other parts.

Miasmata.— } Malaria; a pestiferous
Miasma.— } vapour arising from marshes or moist places containing much vegetable or animal mold.

Midriff.—The diaphragm or broad muscular partition between the chest and abdomen.

Miliary.—Of the appearance of millet seed; a miliary eruption of vesicles resembling millet seed.

Mobility.—Capacity of being moved; moving faculty.

Morbid.—Diseased.

Mucus.—A viscid fluid secreted by the mucous membrane.

Muscles.—The organs of motion in animals, being bundles of fibres united and surrounded by cellular membrane; they constitute the flesh.

Nausea.—A sickness at the stomach, and inclination to vomit, yet not sufficient to effect it; it is sometimes produced by a disgusting smell, taste, or sight.

Nephritis.—Inflammation of the kidneys.

Neurology.—The science of the nerves.

Neuralgia.—Painful affection of the nerves.

Normal.—Regular; natural.

Nosology.—A systematic arrangement or classification of diseases.

Nutritive.—Having the quality of nourishing.

Odor.—Smell; scent; perfume.

Œdema.—Swelling; a soft swelling, as by a collection of water.

Œdematous.—Doughy; pertaining to œdema.

Œsophagus.—The gullet, or channel leading to the stomach.

Omentum.—The membraneous covering that drops or hangs over the front of the intestines.

Opaque.—Impervious to light; dark; obscure; not transparent.

Ophthalmia.—A disease of the eye.

Organic.—Pertaining to an organ or organization.

Ossify.—To turn to bone.

Oval.—Of the shape of an egg.

Oxydation.—The chemical union of any substance with oxygen.

Oxygen.—A subtile gaseous element, which is a constituent of the atmosphere, as well as most organic substances; it is the supporter of combustion, and almost the only acidifying principle. It is this element in the atmosphere that supports respiration, and it is upon its union with combustible substances in the body that the latter is dependent for its heat.

Palpitation.—A beating of the heart; a preternatural beating, such as is occasioned by a fright, or some violent agitation.

Pancreas.—A long gland situated on the duodenum, or rather between it and the bottom of the stomach, which secretes a fluid that is discharged into the duodenum, and assists in digestion.

Paracentesis.—In surgery, the operation called tapping.

Paralysis.—Palsy; the loss of the power of muscular motion.

Parenchyma.—In anatomy, a loose, spongy substance; the spongy cellular tissue that connects parts together, particularly those of the viscera, as the air-cells and blood-vessels in the lungs, and the absorbents, arteries, and veins in the liver; in botany, it means nearly the same thing.

Paronychia.—A whitlow or felon.
Parotid.—Near the ear, or pertaining to the part of the ear.
Paroxysm.—An obvious increase or aggravation of the symptoms of disease, which may last longer or shorter, and then decline.
Pathological.—Pertaining to pathology.
Pathologist.—One versed *in*, or treating *on* pathology.
Pathology.—The doctrine or law of diseases; that which treats on the nature of diseases.
Peccant.—Morbid; bad; corrupt; injurious.
Pedicle.—A stem; pendulous.
Pericardium.—The membrancous sack that surrounds the heart.
Periosteum.—The membrane that invests the bones.
Peristaltic motion.—The vermicular motion of the intestines.
Peritoneum.—The membrane by which all the viscera of the abdomen are surrounded.
Peritonitis.—Inflammation of the peritoneum.
Permeate.—To pass through the pores of anything.
Petechiæ.—Red or purple spots which resemble a flea bite.
Pharmacy.—That part of medical science which treats of the preparation, compounding, and preservation of medical substances; the business of the apothecary.
Phlegm.—A thick, white or semi-transparent, tenacious fluid, commonly secreted in the lungs; in chemistry, it means water of distillation.
Phlebitis.—Inflammation of the veins.
Phlegmasia.—Inflammation.
Phlegmonous.—Inflammatory.
Phrenitis.—Inflammation of the brain.
Phthisis.—Consumption of the lungs.
Physiology.—That science which contemplates the properties and functions of animals and plants; the science of life.
Physiological.—Pertaining to physiology.
Pleura.—The membrane which lines the internal surface of the chest, covering its viscera; it forms the mediastinum which divides the thorax into two cavities.
Pleuritis.—Pleurisy; inflammation of the pleura.
Pneumonia.—Inflammation of the lungs.
Post mortem.—After death.
Primary.—First in order of time, importance, cause, or effect.
Prolapsus.—A falling down; descent.
Prognosis.—The foretelling of the event of diseases, by the symptoms and other circumstances in the case.
Prophylactic.—Preventive.
Prostate.—The name of a gland in the male, situated just before the neck of the bladder, and surrounding the beginning of the urethra.
Proximate.—Nearest; next; in pathology it is applied to the immediate effects of the exciting cause of disease, and hence may be said to be the disease itself.
Ptyalism.—Salivation; an increased discharge of saliva from the mouth, often brought on by the use of mercury.
Pulmonary.—Pertaining to the lungs.
Pungent.—Sharp; acrid; piercing; biting.
Puriform.—Pus-like.
Pus.—A yellowish white matter secreted in suppurations and ulcers, and always present in the healing of lesions in the solids.
Putrid.—In a state of dissolution or disorganization; corrupt; rotten.
℞.—Recipe; take of.
Reflected.—Turned backward; thrown back; returned.
Resuscitation.—The act of reviving from apparent death; the state of being revived.
Respiration.—The function of breathing.
Roscola.—Scarlet blush on the skin.
Rubefacient.—That which produces redness when applied to the body.
Saccharine.—Pertaining to sugar; sweet.
Saliva.—The fluid which is secreted by the salivary glands, and serves to moisten the mouth and tongue, as well as to assist in mastication.
Sanative.—Healing; having the power to heal.
Sanguiferous.—Conveying blood; the sanguiferous vessels are the arteries and veins.
Sanguinaria.—Bloody; a medical plant.
Sanguineous.—Abounding with blood; plethoric.
Sanies.—A thin limpid and greenish matter discharged from ulcers.
Sanious.—Pertaining to sanies.
Scabies.—The itch.

Scarlatina.—Scarlet fever.
Sciatica.—The hip disease; inflammation of the great sciatic nerve.
Scirrhus.—A hard or indurated tumour, which at first is of the natural colour, but the disease is apt to assume a malignant form, when the skin may turn purple or livid, and the surface irregular, and the tumour proceed to ulceration. In this condition the affection generally receives the name of *cancer.*
Scorbutic.—Pertaining to scorbutus.
Scorbutus.—Scurvy.
Scrofula.— } King's evil.
Scrophula.— }
Scrofulous.—Pertaining to scrofula.
Scrotum.—The pendulous pouch containing the testes.
Secretion.—The act of secreting, or producing specific collections from the general circulating mass, as the bile, saliva, mucus, &c.; the matter secreted.
Segment.—A part or principal division of anything, as a leaf, calyx, or corolla.
Semina.—Seed.
Sensorial.—Pertaining to the sensorium or seat of sense.
Serum.—The thin or watery part of the blood.
Sialagogue.—That which promotes salivation.
Sinapism.—A mustard plaster.
Slough.—To separate from the live flesh; a dead part that is separating; a mortified part.
Sloughing.—Separating in a dead mass.
Solution.—In pharmacy, it means a liquid containing some substance in a dissolved condition.
Sordes.—Foul matter; dregs; filthy matter. Sordes are apt to collect about the teeth of persons that neglect cleaning them. This term is also equivalent with *sanies* and *ichor*, the offensive matter running out of old ulcers and sores.
Sordid.—Filthy; dirty; foul.
Spasmus.—Spasm.
Spasmodic.—Pertaining to spasm.
Specific.—A remedy that has a special effect; or which cures any particular disease.
Sphacelus.—Mortified parts; mortification.
Sputa.—Spittle.
Stimulants.—Excitants.
Stomachics.—Medicines that regulate the stomach and set pleasantly.
Struma.—Scrofula; it is also applied to bronchocele.
Strumous.—Pertaining to scrofula; scrofulous.
Stertorous.—Snoring.
Sudorifics.—Medicines which promote sweating.
Suppuration.—That process by which pus is formed in an inflamed part.
Syncope.—Fainting.
Tenesmus.—A continual inclination to go to stool with little discharge.
Tendon.—The white cord or shining end of muscles; sinews.
Terminal.—Extreme; situated at the end.
Tetanus.—A spasmodic disease.
Thorax.—The chest, or cavity within the breast.
Tissue.—Texture; a general name for parts.
Tonic.—That which strengthens, tones, or braces up.
Tonsilitis.—Inflammation of the tonsils.
Tormina.—Severe pains.
Trachea.—The windpipe.
Translucent.—Admitting light, but yet not so as to render objects distinctly visible; semi-transparent.
Tubercles.—Knots, lumps, or tumours.
Tumefaction.—Swelling.
Tumour.—A swelling.
Tunica.—A membrane or covering.
Tunica vaginalis.—A sheathing tunic; the tunic embracing the spermatic chord and vessels.
Tussis.—A cough.
Typhoid.—The term typhoid is now applied to a distinct species of fever whose primary seat is in the intestines; it has many of the symptoms of typhus.
Typhus.—A species of continued and eruptive fever that is characterized by great debility, and a tendency of the fluids to putrefaction; the pulse is weak but corded.
Umbilical.—Pertaining to the navel.
Umbilicus.—The navel.
Urethra.—The membraneous canal that conveys the urine from the bladder.
Ureters.—The two membraneous canals that convey the urine from the kidneys into the bladder.
Urticaria.—The nettle-rash.
Uterus.—The womb.
Vaccina.—The cow-pox.
Vagina.—The canal leading to the womb.
Variola.—The small-pox.

Vermifuge.—A medicine that destroys or expels worms.
Vertigo.—Dizziness.
Vesication.—The formation of vesicles; blistering.
Viscid.—Glutinous, sticky.
Viscera.—The intestines; organs of the chest and abdomen.
Viscus.—An organ, as the liver, stomach, &c.
Virus.—Poison, contagion, foul matter.
Villous.—Like velvet.
Vis vitæ.—Vital force.
Vis medicatrix naturæ.—The healing power of nature.

Chapter I.

PRELIMINARY REMARKS.

"Amid all the changes of systems and the greatest aberrations of schools, the sense of true art has been preserved in the minds of single individuals. *There ever has been an invisible Church of genuine Physicians*, who, always faithful to nature, animated by her spirit, acted according to her intimation, and preserved her holy word,—who ever and anon thought and willed one and the same thing,—who understood and ever will understand each other through all changes of ages and languages."—*Hufeland.*

A very excellent talented friend, with whom we have heretofore held special converse upon disease and its remedies, makes the following remarks, which we copy from the *Brighton Times* of Oct. 3rd, 1868.* It is a fair sample of the general opinion which obtains with advanced minds in regard to medicine throughout the civilized world. As now understood and practised, this great primary science is not only incapable of winning the respectful consideration of society, but even the courtesy due to it as a profession. The thoughtful turn from it with pity, whilst they and the thoughtless alike estimate it as a fashion from which there is more to FEAR than HOPE. The reasons for this will be better understood as we proceed with our work: for

*"With regard to the Herb Doctors and their vegetable medicines * * although I am no advocate for their use, yet I do not place them in the same category with mineral poisons, mineral acids, and the nauseous poisonous drugs, with which allopathy kills its patients. I have never yet seen a single instance of the usual drug doctoring effecting the remotest good to any human being, except, perhaps, to the doctor himself, who gets his living by it. On the contrary, I regard allopathy with its * * * * blistering, purging, alcoholic stimulation, beef steak and porter diet, turtle soup, bacon for bilious patients, and the rest of its abominations, as relics of the heathen practice of medicine, which have no foundation in reason, experience, or the nature of things. * * * Mankind may rest assured that their so-called remedies and specifics against disease are so many delusions which prevent them from attending to the grand source of all disease—bad sanitary conditions, both physical and mental."

the present it will be sufficient to say that the doubts and fears of the public, and the divisions and dogmas of the profession are the best evidences we can have for its future improvement. It is through "doubt" that the temple of truth can alone be entered, and having arrived at the portal, we may, if we so will it, at once enter.

The friend from whom we have quoted is already far advanced, and cannot long refrain from seeing where he is, and what his doctrine leads to. Let us accept the truth which he submits to us, and say, "Bad sanitary conditions, both physical and mental, are the source of all disease;" where are we then, and what are the resources of our present probationary and progressive state? Here we are, surrounded with causes from which disease in a thousand varied shapes assails us, and since we are powerless to carry society, with its follies and deficiencies, to that higher and more healthful condition of life to which sanitary knowledge would lead us, and which we all instinctively desire, it becomes a duty more binding upon the physician than upon any other, to do the next best possible thing, which is to cure disease agreeably with the dictates of reason and experience, in the best possible way. This is his mission, and since it is altogether impossible for mankind ever to arrive at a condition where disease shall cease, or in other words, since man can only acquire knowledge by experience, he must, from his nature, often come in contact with causes, both physical and mental, which tend to disarrange his organism and induce disease.

Healing the sick is a science, therefore, because suffering is a necessity: it is not nature which is at fault, but men. We have had systems enough to know that the science of medicine does not lie in scholastic teaching, nor is it with sectarianism that the physician should deal, but with simple truth, and with this he must deal, if he would successfully cope with disease. He will not be content with shadows, nor allow anything conventional to stand between him and his free thoughts. He must accept society as he finds it, and with a settled conviction of the importance of his art, and its relation to the necessities and sufferings of mankind, enter upon his task, asking only for the assent of those who, like himself, have faith in nature, and are content and ready to step from the beaten track of old errors into the path where light and science lead.

Chapter II.

HISTORICAL AND SCIENTIFIC ASPECT OF MEDICINE.

"The acquisition of a new truth is equivalent to a new sense, enabling us to now perceive innumerable phenomena, which remain invisible or concealed to others, as they formerly were to ourselves. * * * * The Physician who has learned medicine, not as a science, but as an empirical art, acknowledges no principles, but only *rules* derived from experience.

"The object of his inquiries is only whether a remedy in a given case had a good or bad effect. This is all the empiric cares about. He never asks why. He never inquires into the causes of what he observes."—*Liebig.*

Before considering our subject in its "scientific aspect," it will be first necessary to define "terms." At present few or none that we are acquainted with care to admit that "medicine" is a "science."

The late Sir John Forbes, Physician to Her Majesty's household, in his work on "Nature and Art in the Cure of Disease," calls it a "conjectural art:" and Mr. Skey, senior Surgeon of St. Bartholomew's Hospital, calls it an "uncertain science."

"If the science of medicine," he says, "were a certain and fixed science, there could be no difficulty in determining, if not the most appropriate agent of cure, at least of selecting the most appropriate principle. But no argument can be more in favour of its great uncertainty and of the inconclusiveness of medical reasoning, than the fact that this one disease (Erysipelas) is deemed amenable to one form of remedy by one class of practitioners, and by the direct opposite by another class. If one of these remedies be good, the other must be bad, for their properties are in direct antagonism."

We quote from the above authors because we are not aware of any higher authorities, and we may justly conclude that they fairly represent the medical profession. Mr. Skey's great difficulty, so it appears to us, is to distinguish SCIENCE from ART. He does not appear to know that in our endeavours to construct a science, we must not lose sight of the fact, that without a knowledge of first principles, we cannot pass beyond art. "No science (says a quaint old author) doth

make known the first principles whereon it buildeth, but they are always taken as plain and manifest in themselves, or as proved or granted already, some former knowledge having made them evident." It is, therefore, for want of the conception of some very simple natural law—this "former knowledge" of first principles—that up to the present has kept medicine in the state in which it is.

As a science, medicine is perfect; that is to say, the principles upon which it rests are "perfect;" but the "practice," which is the building up or working out of the "science," is necessarily imperfect. In the sense, for instance, in which we look upon all experimental science. No one thinks of calling the "science" of navigation "imperfect," because from the unskilfulness of the navigator, or some accident which the best skill could not avert, his vessel is broken upon the rocks, and engulphed beneath the waves. Time was, it is true, when the *magnet* was unknown, hence our early mariners could make but little progress.

> "Rude as their ships was navigation then,
> No useful compass nor meridian known;
> Coasting they kept the land within their ken,
> Nor knew no north but when the pole-star shone."

That there are fixed principles lying at the base of navigation we very well know, and these constitute it a "science." The same may be said of agriculture, and all the known sciences with which we are familiar. And yet "agriculture" as a "science" is practically known to but few. It is nevertheless a "science" of the very highest order. We might readily excuse a farmer who had never seen or heard anything of chemistry, who, in the empirical routine followed by his fathers, was content to believe agriculture nothing more than an art; but if he persisted in telling us there was no "science" in it because of the different methods of ploughing, manuring, and cropping, or because he knew nothing about it, we, who understood the subject, might feel inclined to smile at his simplicity. We ask no assent to these facts, but simply throw them out as suggestions for reflection. Without a knowledge of chemistry as it relates to the constituent principles of the different soils, and the animal and vegetable organisms cultivated and developed in their highest vitality, from the relative and uniform relationship which the one bears to the other, agriculture never could have risen to a practical science, and the want of this, we

think, keeps medicine in its present unsatisfactory state. The immediate requisites of mankind must command the largest share of attention, the remote, from their uncertainty and possible exemption, the least. The first consideration must ever be directed to the production of the positive necessaries of life, and this is doubtless the reason why agriculture has always held the foremost place in all civilized countries; the luxuries, conveniences and comforts follow in order as progress and population advance. Speaking of the present state of medicine, Sir John Forbes said: "It has arrived at such a condition that it must either mend or end." What he meant to say doubtless was that the policy of its professors would break up or destroy their own prestige, unless the practice greatly improved, not that medicine could ever 'end': or, if it does, it can only be with the extinction of the human family. There are no two sciences so closely allied as agriculture and medicine; they are twin in birth, and stand in the same relation to mankind as to one another; and here the questions naturally arise: what is FOOD, and what is MEDICINE? The former is expressive of all that ever has been, is, or can be made available for sustaining and continuing life. We cannot disassociate the word from the universal law which ever governs our existence. "Food" must be organic, that is to say, that only which agrees with the order and economy of life is capable of being assimilated with it.

"The animal body is a higher organism, the development of which begins with those substances, with the production of which the life of those vegetables end which are commonly used for food. * * In the infinite series of organic products which begins with the inorganic food of plants, and extends to the most complex constituents of the nervous system and brain of animals, the highest in the scale, we see no blank, no interruption. The nutritive part of the food of animals, that from which the chief material of their blood is formed is the last product of the productive energy of vegetables."

This fact is so self-evident that we cannot refuse it our assent; coming as it does, however, from so great a philosopher and chemist as Liebig, it cannot fail to forcibly impress us.

We are not presuming there are no exceptions to this law; but it must be readily acknowledged, they are so "few and far between," that no one will ask more for them than they are worth, which is just nothing. History, it has been said, repeats itself, and this truth may be seen by all who are not blind to the changes that

are daily and hourly taking place in medicine. "It needs no great amount of chemical knowledge to know that the discovery of the law which regulates the dependence of the quality and functions of the blood on the nature and amount of its combustible constituents, is the foundation-stone of medicine and physiology, and that it is utterly absurd even to dream of a rational science of medicine before we have laid this foundation-stone on which must rest the solution of all questions concerning the "animal economy." In so far, therefore, as the question of "What is food" is concerned, it is answered by the common experience of mankind in all ages of the world. The question, "What is medicine," however, we shall not be able to pass over so briefly; nevertheless we cannot see that the difficulty is very great, nor do we believe it possible for any unprejudiced mind to reject the conclusions that force themselves upon us. We are not arguing for sectarianism, nor taking sides with any party, but for "scientific medicine." How best to promote the interest of our profession is with us the one-absorbing motive. Of colleges or schools we take no cognizance; of theories and creeds we know little, and of men less. We come to our task, therefore, with the mind unshackled, asking for nothing but what reason and science may justly claim.

Before entering fully upon the scientific aspect of the question, it will be necessary for us to run briefly over the past history of medicine; and this we shall best do by quoting from a writer to whom the brightest minds of the age bow with dignity and respect.

"Numberless germs of intellectual life fill the universe" (Liebig says); but it is only in a few rare minds that these germs find a soil in which they can be developed. In those chosen minds the idea, whose origin is unknown, shows its vitality in creative acts; in them the mysterious laws of nature assume a form efficient, active, and recognisable by all. It is not to the warlike deeds of mighty princes and renowned generals, but to the never-dying names of such men as Columbus, Copernicus, Kepler, Galileo, and Newton, that history refers the past progress in natural science, and the intellectual advancement of the present time. The doctrines of the Church invading every branch of knowledge, and the prevalence of a false philosophy, had arrested the free expression of human intellect for a thousand years. A system of teaching like that of the celestial empire, which even now excites in the learned men of China a peculiar sense

of pleasure, in the reading of pages of meaningless names, had annihilated, in the full blossom of the scholastic philosophy, all desire after the investigation of truth. Like a tree which, when checked in its growth by external impediments, is crippled into the strangest shapes, so did the noblest mental powers languish and become deformed in the unyielding mould of hair-splitting dialectics. Men of acknowledged reputation wrote books and treatises on storms, or on showers of blood, in which they discussed everything save only the explanation of the phenomena. Whether Adam, while yet without sin, was already acquainted with the *Liber Sententiarum* of Petrus Lombardus;* What was the age and dress of the angel who brought the message to the holy Virgin Mary; Whether there had existed in Paradise, before the Fall, the necessary excretions of the human body; Whether the angels spoke Greek or Hebrew; How many thousand angels could stand on a needle's point without crowding. In these and similar questions and researches, which in our times would be regarded as valid evidence of insanity or folly, were the most distinguished intellectual powers devoted. Renowned philosophers corresponded at great length concerning the gift possessed by the Kings of France and England of healing scrofula by the mere touch. They disputed as to whether this miraculous gift adhered to the throne or to the family. It was reckoned amongst the hidden (occult) forces, the existence of which was sufficiently demonstrated by experience.

In order to find a right path, the human mind requires a guide acquainted with it; but a secret and mysterious power held the light imprisoned; and in this intellectual darkness no guiding star was seen. The treasure which the early times had acquired in the form of true knowledge of nature, was not duly appreciated nor regarded, and thus lost its power to enrich and fertilize. Questions of mystical science were decided according to the rules of the *Ars Disputandi*. In renouncing the aid of experiment and observation, which alone can create science, man thus banished true science. From the lowest of materials for the exercise of thought men lost the habit and dexterity given by practice, for putting great questions as to the causes of things or phenomena, of observing them, and of discovering their connections by experiment.

* Died 1164 as Bishop of Paris.

Such a state of matters enables us to comprehend the supremacy of astrology, of the cabala, of chiromancy, and the belief in lycanthropy and sorcery. It explains how, centuries later, diseases could be regarded as direct judgments of heaven, or as works of the devil: and how prayers, amulets, holy water, and relics, were considered the most efficient remedies. The story of the golden tooth,* at the end of the sixteenth century, proves how entirely men, even in the more cultivated classes of society, had lost the power of successfully investigating the simplest phenomena. When Columbus had to defend his views concerning the shape of the earth, and the possibility of circumnavigating it, in Salamanca, the first seat of learning of the age, before an assemblage consisting of the most learned professors of astronomy, geography, and mathematics in the Spanish kingdom, along with the wisest and most respected dignitaries of the church, he appeared to the majority as a dreamer worthy of ridicule, or as an adventurer deserving of contempt. And yet never had a learned disputation a greater influence in the development of the human intellect than that one, in the collegiate church of St. Steven, Salamanca. It was the dawn of a new day,—the forerunner of the great victory of truth, over the blind faith of the age. In these remarkable discussions, mathematical demonstrations lost their validity, when they seemed to contradict passages of holy scripture, or the *interpretation of these passages by the fathers of the church.* How could the earth be spherical when it is said in the Psalms that the "heavens were stretched out as a garment?" How was it possible to regard the earth otherwise than flat when the sacred writer compares the firmament to a tabernacle or tent spread out over the earth? Had not Lactantius thus pronounced against the antipodes?—Is there anyone so mad as to believe that there are men whose feet stand opposite to ours, and who are able to walk with

* A boy ten years old in the neighbourhood of Schweidnitz was the miraculous child in whom had grown the Golden Tooth. * * "On the day of his birth (22nd December, 1586,)" says the great physician Horst, "the sun had been in the sign of Aries. By this supernatural cause, the nutritive force, in consequence of the increased heat, had been miraculously augmented: and thus instead of bone, gold had been secreted. He then goes on to examine the significance of the miracle as a sign of future events. * * * Two other physicians, Martin Ruland the younger, at that time in Ratisbon, whence he subsequently went to Prague, and John Ingolstetter, of Nuremburg. * * * The former had tried to explain it by natural causes, but the latter, if we may judge from his book, endeavoured to prove it a true miracle or supernatural event."

their legs upwards, and their heads hanging down; that there is a part of the world where all things are topsy-turvy,—where the trees grow with their branches downwards, and where hail, snow and rain fall upwards? Did not Saint Augustine say "that the doctrine of the antipodes was altogether irreconcilable with the historical foundation of the Christian faith, for that whoever said there were inhabited countries on the opposite side of the earth, asserted that there existed in these countries men who were not derived from Adam, since it was impossible for his progeny to pass the intervening ocean. Such an opinion must destroy our belief in the Bible, which expressly declares that all men sprang from one pair of parents." What presumption was it in a common man to believe that so great a discovery was reserved for him, after so many profound philosophers and geographers had made the shape of the earth the object of their researches, and so many good seamen had sailed over its surface for two thousand years.

After Columbus had deprived the ocean of its terrors, and Copernicus had taught "that confidence in the power of knowledge which bursts the bands of external authority, and only yields belief to the evidence of reason" the courage necessary for the investigation of unknown regions of intellect awoke also in other minds. The agent was already in existence which was to propagate the mighty shock through all the regions of science. As the blood, *which is the condition of all bodily action, receives its impulse from the action of the heart*, so did Guttenberg's invention of printing send warmth and vigorous life to all parts of the intellectual organism now assuming its new form.* * * * * The study of the classics leading to a critical testing of all traditionary learning, broke the chains of the wisdom of the schools. *Man recognised in nature* the inexhaustible fountain of purer knowledge, and nature appeared as a newly-discovered atlantis formerly submerged in a sea of ignorance. * * * The mightiest champion arose, for the purity of religious belief. LUTHER, in his "Table-talk," most aptly describes the love of nature and its study, which arose with the reformation. * * A number of the greatest men followed in uninterrupted succession till the great work was done, and its work secured. A hundred years after Copernicus, Kepler was born, and Newton saw the light in the same year

* In the same year in which Columbus was born, Guttenberg invented printing by moveable types.

in which Galileo died. The Church of the middle ages had set up in its theological philosophy a universal science, and had fortified it with the whole authority of a religious belief. * * To deviate from established doctrine was heresy, it was synonymous with the rejection of the revelation from heaven. Tortures and the stake awaited the man who thought freely or otherwise than the church. An ignorant and jealous priesthood saw in the diffusion of the sciences the most dangerous means by which their power might be undermined; for with the study of the natural laws, natural phenomena lost the supernatural character by means of which the minds of men were governed. A century after Luther, Galileo, at the command of the church, was compelled in the dungeons of the Inquisition to recant the doctrine of the earth's motion, and the words he murmured "*E pur si muove*," when he rose from his knees, clad in a bare shirt, to this day retain the irresistible force of established fact.

In that eventful age, chemistry also underwent a transformation. Being conjoined with medicine, chemistry acquired a new object, and entered on a new direction. Alchemy had forged the weapons wherewithal chemistry was to conquer in medicine, a new region, and put an end to the thousand years' reign of the Galenic system.

The great and salutary change which medicine underwent, its liberation from the fetters of authoritative belief, was the natural result of the recognition of the unattainableness and inaccuracy of all the previously received doctrines on the true nature of material objects. This new light was a trophy gained by the alchemists, and by its aid the doctrines of the Greek philosophers concerning the causes of natural phenomena acquired a new form. * * *

The doctrines of the Greek philosophers were made by Galen the foundation of the first theoretical system of medicine.

According to Galen, all the parts of the organized body are produced by the mixture in different proportions, of the four elementary qualities of matter. In the *blood* they are equally mixed; in mucus, *water;* in the yellow bile, *fire*; and in the black bile, *earth* predominates. The four temperaments depend on the preponderance of these four cardinal juices. In consequence of the misproportion of the elementary qualities, the juices are found to be TOO HOT, TOO COLD, TOO MOIST, or TOO DRY. When their motions are arrested and transpiration is impeded, there occurs a corruption of the juices, and the

various forms of fever are produced. The unnatural heat of fever is a result of this putrefaction. By the putrefaction of the mucous or shining fluids of yellow or of black bile, *quotidian*, *tertian*, *quartan*, and other fevers are excited.

Health is a state of equilibrium determined by the conformation of similar parts, that is of organs, and by the just mixture of the elements. In disease these relations are disturbed; disease is a state of conformation or mixture opposed to the natural state.

According to Galen, the efficacy of remedies depends upon the fundamental qualities inherent in each; they are HOT, or COLD, MOIST, or DRY. A remedy according to the amount of the fundamental quality of heat, may produce a hardly perceptible or a distinct warmth; it may excite heat more or less intense, and each quality has four similar degrees in its action; substances of a burning taste belong to the HOT, those of a cooling taste to the COLD remedies.

The removal of disease, or the restoration to health depended on the supply of the deficient quality by communication, or in a removal of that which is in excess, by means of a remedy which tends to abstract it.

In this consistent system, disease and the action of remedies were reduced to a very limited number of causes. Diseases, like remedies, admitted of a certain number of divisions; and when he had ascertained the place in the arrangement to which a disease was to be referred, the physician found in the corresponding division the appropriate means of restoring health. He knew the origin of the disease, and he knew why the remedy cured it.

In place of the empirical art, and the method of experience which had led Hippocrates, of Cos, to his innumerable observations, and his admirable system of dietetics, there now appeared the theory which combined, arranged, and explained these observations. The treatment of diseases followed by the great physician of Cos could be learned only by imitation; the new system was infinitely better adapted for teaching, and the acquisition of medical knowledge was rendered much easier.

The Greek philosophers, as well as Galen, had no conception of the peculiar properties which are brought to light when different bodies are brought into mutual contact.

It is easy to perceive that the fundamental idea of the Galenic

system was quite identical with that which guided the alchymists,—the idea, namely of the *possibility of transmuting the elementary bodies by the addition or subtraction of elementary qualities.* Lustre, colour, fixity in the fire, and volatility could all be removed and supplied, according to the belief of those days; they could also be exalted and diminished. Gold was the most perfect metal, to which no properties could be added, because it possessed all. *Among metals it represented the healthy human frame.* "Bring me," cries Geber, "the six lepers (silver, mercury, copper, iron, lead, and tin) that I may heal them." Brass was diseased gold; quicksilver was diseased silver; they could be transmuted into gold, that is, healed by the medicine of the third or highest order. The origin of gold was regarded as analogous to the generation of animals, or the origin and growth of plants. Raymund Lully compares the production of the philosopher's stone with digestion, with the origin of the blood, and the secretion of organic juices.

In the course of their labours, the alchymists had noticed certain peculiarities in the properties of bodies, which had remained unknown to the Greek philosophers, or disregarded by them, and, by degrees, three new elements, the existence of which was doubted by no one, were added to the four elements of Aristotle. To the four fundamental causes of the physical properties of matter, were now added three fundamental causes of the most general chemical properties, namely, MERCURY, SULPHUR, and SALT.

In the spirit of the earlier philosophy, which ascribed all causes of action not perceptible to the senses, to invisible spirits, and all sensible properties to tangible and material causes, common sulphur and quicksilver were regarded at first as actual constituents of the metals; certain properties were believed to be dependent on their presence, exactly as at a more recent period the causticity of lime and the alkalies were ascribed to the *causticum*, or caustic principle, the peculiar smell of certain bodies to the *Spiritus rector*, and the acidity of the acids to a primitive or original acid.

The nature of the language of ordinary life, which avoids all abstract ideas, explains why men, in the infancy of research, ascribed a certain character or certain properties of bodies to material causes. Even Lavoisier could not shake off the idea of a primitive acid. He regarded oxygen as the generator of this "primitive acid." And long after his time, many still see in hydrogen the cause which determines acidity.

In the ideas of the alchymists, actual sulphur and mercury were gradually supplanted by an ideal *sulphur* and an ideal *mercury;* things which combined in themselves a certain number of properties. *These ideas* at a later period took the form of elementary qualities.

Many bodies possessed the property of being volatile without alteration in their other properties, when exposed to fire. They were sublimable like *arsenic* or capable of being distilled like *mercury.* Another class of bodies was also volatile, but underwent a change in the fire, such as *sulphur.* A third class, although changed in the fire, was not volatile, but fixed, like the salts found in ashes. *Sulphur, mercury, arsenic,* and *salt,* became at last, as has been stated, abstract conceptions, simple elements, in the sense of the four elements of Aristotle. As we speak of the form and shape of a thought without understanding by these figurative terms a bodily shape, so did men in these days, express abstract notions by terms indicating bodily or material things, without understanding thereby anything more than properties: and we often use similar terms at the present day, with this difference, that to designate their immaterial nature, we add the word "force," as in the term "catalytic force."

Basil Valentine says of spirit of wine, "When a rectified aqua vitæ is kindled, its mercury and sulphur separate, the sulphur burns quite vividly, for it is pure fire, and the delicate mercury flies into the air, and returns to its original chaos." Spirits of wine was regarded as "sulphureous vegetable mercury," which only meant that it possesses inflammability and volatility. * * * No distinction was made between organic and inorganic or mineral substances; their difference was ascribed to the different proportions of the elements. Vinegar was classified with the mineral acids, spirits of wine was ranked beside chloride of tin (spirit of Libavius), and chloride of antimony (butter of antimony) next to the butter of the cow.

In the time of *Geber,* the *chemical* process was considered analagous to the *organic* process; in the thirteenth century the idea arose that the vital process might be analagous to the chemical. In the earliest period it was believed that metals were developed from a seed or germ; at a later period the opinion prevailed that the chemical process generated the seed. The ancients held the processes of fermentation and putrefaction to be the cause of the generation of plants and animals; while on the contrary some physiologists and pathologists of

the present day regard the development and generation of plants and animals as the cause of fermentation and putrefaction.

The views and conceptions entertained of nature can only be rendered comprehensible to the mind by means of *images* or *notions* derived from natural science, and clothed in the language of nature. Now if we reflect that during the thirteenth, fourteenth, and fifteenth centuries, all knowledge of nature and her powers was concentrated in alchemy, magic and astrology, it is easy to see how by degrees, alchemistical forms of expression for terrestrial processes passed into the language of ordinary life. The phenomena of organic *life*, *life* itself, *death* and *resurrection* were rendered more intelligible by means of ideas derived from alchemy; they could only be rendered scientifically by the language of science, and alchemy was the science of that period.

"We poor mortals" (says Basil Valentine) "are for our sins here, by means of that death which we have well deserved, pickled in the earthly, that is, the kingdom of earth, till in process of time we become putrid and rot, and then are once more awakened, clarified and sublimed, by virtue of the heavenly fire and heat, even to the celestial sublimation and elevation; for all our dross, sins, and impurities are sundered from us."—(Kopp, ii, 236). Luther, in his *Canonica*, praises alchemy, "by reason of the glorious and fair resemblances which it has to the raising of the dead; for even as fire from each kind of thing doth extract that which is best, and doth sunder it from the bad, and doth thus carry the spirit itself upwards, so that it shall have the upper place, whereas, matter like unto a dead body, doth remain below, lying on the earth, so also will God at the last day, by his judgment, as with fire, sunder the godless and unrighteous from the righteous and godly. The righteous will ascend to heaven, but the unrighteous will abide below in hell."—(Kopp, ii, 238.)

In the thirteenth century arose for the first time the idea that the philosopher's stone possessed the powers of healing disease and of restoring youth. This idea was developed from the opinion that the vital process was nothing else than a chemical process. With the philosopher's stone it was possible to heal metals of their maladies, to render them healthy, and convert them into gold; and the idea that it must have a like effect upon the human body suggested itself. Arnold of Villanova, Raymund Lully, and Isaac Hollandus outdo

each other in their praises of its healing virtues. Hollandus, in his *Opus Saturni*, says :—

"A portion of it, the size of a grain of wheat, should be laid in wine, and then given to the patient. The action of the wine will penetrate to the heart and spread itself through all the juices. The patient will sweat and thereby become, not more weary, but even stronger and more cheerful. This dose should be repeated every ninth day, when the patient shall think he is no longer a man, but a spirit. He shall feel as if he were nine days in paradise, and living on the fruits."

Solomon Trismosin maintains that when an old man, he renewed his youth by means of a grain of the philosopher's stone. His yellow wrinkled skin became smooth and white, his cheeks rosy, his grey hair black, his back bowed with age became erect. He restored, as he asserts, perfect youthfulness to ladies ninety years of age!

When the idea that the philosopher's stone was a universal medicine had been once developed, men were led in the most natural way, to the use of chemical preparations in medicine; and with this began a new era in the science.

If indeed the stone possessed in an equal degree the properties of ennobling the baser metals and of healing disease, then the diseased human body was a far more convenient means of recognising *materia prima*, and of testing its gradual refinement in the process by which it was elaborated into the perfect *magisterium*. For the number of diseases which the preparation at a given stage of its elaboration could heal was an infallible test of its progress towards perfection. The more diseases it cured, the nearer it must be in its properties to the philosopher's stone. *The true, perfect stone must heal all diseases.*

The pharmacopœia of the Galenic school contained no chemical preparations, and consisted exclusively of organic substances: musk, rhubarb, castoreum, camphor, tamarinds, ginger, zedoary root, and the like were its chief remedies. Pharmacy then consisted in bringing these matters into the form of syrups and electuaries; herbs, barks, and roots were administered in the form of decoctions or of powders.

On the authority of Galen, all metallic preparations were up to that time banished from the pharmacopœia. He *regarded* mercurial preparations simply as poisons. Avicenna says true gold and silver have powers of purifying the blood: but these metals as a general rule were used only in the form of leaf to cover pills; and so late as the end of the fifteenth century the external use of mercurial ointments prepared with fat, encountered the fiercest opposition.

When we consider that the views of Galen, in regard to the cause of disease and the action of remedies, were regarded during thirteen centuries as impregnable truths, and had acquired the entire infallibility of the articles of a religious creed, we can understand what kind of impression must have been produced on the physicians of the sixteenth century by the truly wonderful effects of the preparations of mercury, antimony, and other metals. A whole region of new discoveries seemed to be opened up by the ideas of the alchemists, and by the use of chemical preparations in medicine. There was discovered in the blood a property belonging to alkalies; in the gastric juice a property belonging to acids. A contrast or opposition was noticed between these fluids, corresponding exactly to the contrasts of the Galenic qualities.

When acids were brought into contact with alkalies, new bodies were formed, neither acid nor alkaline, but possessed of properties entirely changed. The so-called mild alkalies exhibited the property of effervescence with acids; and the true nature of all fermentations which were regarded as dependent on effervescence appeared to be thereby explained. Heat was observed to be developed in liquids by the mixture of acids with alkalies, without the observers perceiving proper combustion to take place. This appeared to account for the heat developed in the respiratory process.

How was it possible any longer to allow validity to the theory of Galen concerning the vital phenomena and the action of remedies, after it had been proved that all his views in regard to the metals and their preparations were entirely fallacious; or when it had been discovered that the peculiarities of the organized body and the effects of remedies depended upon fundamental causes which Galen had not taken into account in his explanations, because he was not acquainted with them. Not only those fundamental causes which determine the physical properties, but also the chemical properties of bodies must now and henceforth sit in council and be taken into account in explaining organic processes. The vital phenomena and the action of medicines now as it appeared depended not alone on the relative proportions of *moisture* and *dryness*, *heat* and *cold*, but in addition to these on the proportions of *salt*, *mercury*, *sulphur*, *alkali*, and *acid*. In consequence of such new and altered ideas, the art of healing assumed a new form.

If the normal chemical character of the juices was the condition

which determined the healthy state, the abnormal character of these juices was of course the proximate cause of disease; and disease could be removed by the predominating chemical quality of remedies, and health thus restored.

In selecting remedies, then, especial attention must be paid to the chemical constitution and character of the bile, of the saliva, of the sweat, of the urine, &c. This was a step forward of incalculable importance. The valuable discovery was soon made that the chemical state of the urine stood in a definite relation of dependence to certain diseases; and as, in the period of science now under review, all effects were taken for causes, the deposits formed in the urine, or the tartar, were regarded as the causes of many diseases.

In the spirit and mind of Paracelsus, the new ideas of the times were concentrated and assumed a definite shape; and when a few years after, Luther at Wittenberg, had burned the Papal bulls, Paracelsus at Basle (following the example of the great reformer), committed to the flames the works of Galen and Avicenna, their reign came to an end.

"Men," said Paracelsus, "have abandoned nature and given themselves up to vain dreams;" therefore he pointed to the open book of nature, "which God's finger hath written. No dim study lamp, but the sun itself shall supply us with the true light. The eyes which have pleasure in looking, they are the right professors. Nature is without guile, righteous and entire. From book-craft and from the working of men's fancy do grow confusion and sham fights. Follow me!"—thus he opens his *Paragranum*—"Follow me! I follow you not, O Avicenna, Rhases, Galen, Mesur! Follow me! I follow not you, O ye of Paris, ye of Montpellier, ye of Swabia, ye of Misnia, ye of Cologne, ye of Vienna, and ye who dwell on the Danube and by the Rhine! ye isle of the sea, thou Italy, thou Dalmatia, thou Greek, thou Arabian, thou Israelite! Follow me! I follow you not! Mine is the monarchy!"

In Paracelsus are reflected all the ideas, all the faults, all the errors of his time. In him a gigantic force strives against the impediment of outward fetters. He has the instinct but not the full consciousness of the right path. He seeks in vain in the wilderness that surrounds him; hence his contradictions and inconsistencies; hence his internal struggles. But his word gives to the century its direction. "The true use of chemistry," he says, "is not to make but to prepare medicines."

By Paracelsus, chemistry was taken out of the hands of the gold makers, and brought into the service of the far more learned and

cultivated physicians; and as he and his followers prepared their own medicines, chemical knowledge, and an acquaintance with chemical operations were thenceforward regarded as among the most essential qualifications of the physician.

In the sixteenth and seventeenth centuries, the explanation of natural phenomena continued to revolve round the idea of the existence of hidden qualities, until extended experience led to the important truth, that matter and its properties are practically not separable. We cannot any longer even conceive of them as separate.

Long after Paracelsus it was believed that the chemical operation was to the medicine what the stomach (for digestion) is to the food from which the blood is formed. By a thrice-repeated sublimation of corrossive sublimate with metallic mercury, calomel was obtained; a sublimation nine times repeated produced the *Panacea Mercurialis.*

The spiritualising fundamental causes of Plato, which, according to him determined the vital actions, are combined by the followers of Paracelsus into the *Archæus*, which is placed in the stomach, and being furnished with all the passions of man, governs digestion, the phenomena of motion, and moods of the mind.

When we represent distinctly to ourselves the utter contempt with which modern medicine looks down on the views of Paracelsus and his followers regarding their views, like the ideas of the alchymists concerning transmutation as a hallucination, and compassionating them accordingly; and when we compare with these views the present theories of the causes of diseases, and of the methods of cure, the philosopher with all his pride in the achievements of the intellect in the regions of truth, is humbled by the daily occurrence of contradictions which we should hold impossible, if they did not actually exist. For even now the system of Galen and Paracelsus rules, as it did formerly, over the minds of most physicians; and many views remain unchanged except in the forms of expression. The *Archæus* of the sixteenth century was transformed in the eighteenth and beginning of the nineteenth centuries, into the vital force of the Philosophers; and it lives on to the present day in the guise of the all-determining nervous force or influence. No one can deceive himself as to the true position of theoretical medicine, who remembers that in our age, in which the true principles of investigation appear to shed abroad their light clear and brilliant like the sun, a doctrine was able

to develope itself in medical science, which to our posterity will appear incredible.

Who can maintain that the majority of well-informed and cultivated men of our time stand on a higher level in regard to knowledge of nature and her powers than the iatro-chemists of the sixteenth century, when he knows that hundreds of physicians trained in our universities regard as true, principles which defy alike all experience and sound common sense; that there are men who believe that the effects of medicines are due to certain forces or qualities, which by means of grinding and shaking can be set in motion and increased in force, and thus communicated to inert bodies; who believe that a law of nature, to which no exception is known is false for medicines, since they believe that their efficacy may be increased with their dilution and with their diminution of active matter. Truly, one is tempted to adopt the opinion, that among the sciences which have for their object a knowledge of nature and of her forces, medicine, as an inductive science, occupies the lowest place. Just as the farmer expects wonders from a new plough, a new sowing machine, a new manure, or a new mode of cultivation—although these things without first principles can only waste his substance and render him poor sooner than he would have been without them—so the physician looks for the progress of his science in the improvement of its technical part. In a new medicine, a new mode of treatment, or in the restoration of an imaginary composition of the blood or of the urine, he seeks not to remove the stone which impedes the progress of his vehicle, but, like the carter, to urge his horse with his heavy load when he can no longer advance over the obstacle, by the use of the whip; and when nature helps herself, he wishes us to believe that the "whip" is a power, and has been the means of restoring health. All these things are useful, perhaps necessary; but they are not used in order to clear away the difficulty for all who are to follow, but serve only to enable him to skip over it in the easiest manner in the individual case. That which most readily presents itself to the imagination is used as a bridge; but if the philosopher gets safely across, he allows it to fall to ruins behind him, instead of giving it a secure foundation. If he fails, the imperfection of science is blamed for his failure. The art of experimenting makes tools or instruments; but it has never happened that a mass of observations has become a science by virtue of tools or instruments.

There are building materials in abundance, so as almost to cover the ground on which the edifice should stand; but the master builders are quarrelling, and their minds are not made up as to the place. One would have the structure of *wood;* another thinks it ought to be of *stone* and *wood;* a third that it should consist of *stone* and *iron.* TWO OF THESE MATERIALS SHOULD AT ALL EVENTS BE EMPLOYED; BUT ALL THREE, IF PROPERLY COMBINED, WOULD YIELD AN EXCELLENT BUILDING, WERE IT NOT FOR THE LABOURERS, WHO WILL HAVE IT MADE OF STRAW AND BUILT IN THE AIR. It is because of this that in the course of two thousand years even the foundation has not been finished.*

Now if it be asked why we quote so copiously from the above author, our reply is,—1st, because his authority is greater than that of any other; and 2nd, because we think it may help to preserve the truest and best history that has ever been written upon the subject.

Medicine, as a profession, ever has existed, and ever must. What is the "medicine man" of the savage but the representative of a principle; and what is the difference between him, wise with the mummeries, charms, incantations, and mysteries of tradition, and the most finished physician? Nothing. They exist as a living fact; not independently of human necessity, but as part of it; and pointing to the one great object of the individual throughout every phase of his being, viz., his desire to avoid suffering.

In replying, therefore, to the question of "What is medicine?" in so far as it relates to the administration of positive substances, we say,—a graduated scale of organisms, holding the same relation to life in an abnormal or diseased state, as food in a healthy state. Medicine, considered as a science, identifies itself with no party strife, nor scholastic dogma; admits no limit nor geographical boundary to its investigations; it is a science from all time, for all time; and as its professors, we hold our tenure or right legitimately no longer than we apply it successfully to cure or alleviate the sufferings of our fellow-creatures. And this can never be done where doubt or uncertainty exist regarding its first principles. We can anticipate the objections that may be brought against our philosophy by superficial thinkers. They will tell us of the bones, blood, brain, and muscular tissues, and point to their inorganic components in triumph, as proofs.

* Familiar Letters on Chemistry, by Justus Von Liebig. London, 1851. Taylor, Walton, and Maberley.

"strong as holy writ," in favour of the use of metals and minerals as medicine. Does not the unsightly and distressing disease, *rickitis*, arise from deficiency of phosphate of lime in the bone, and *chlorosis*, or green sickness (so common to young females subjected to sedentary labour and long hours), from deficiency of iron in the blood; and may we not fairly conclude that disease of every kind, which is an abnormal or disturbed condition of healthy life, originates from deficiency of one or more of the inorganic constituents necessary to health? Presuming, they will say, from the positive knowledge which the chemical analysis of bone, blood corpuscles, cellular and muscular tissues, has already revealed that such is the case, are we not justified in seeking to supply these substances, the deficiency of which are the causes of disease? We reply, certainly! most certainly!

What objection can there be to the phosphates or preparations of lime in diarrhœa, or acidity of the stomach, if prescribed according to the Pharmacopœia, or the hypophosphate, or lactate of lime, in *rickitis* or *tuberculosis*. Are we to presume, after the experience of two thousand years and more, that there is no medicinal virtue in *iron?* What can we do without it? Have we not found the *tincture ferri acetis* (acid tincture of iron) most valuable in debility and leucorrhea; and is not the *ferri phosphus* (phosphate of iron) a most valuable tonic, increasing not only the septic and digestive powers of the stomach, but the reproductive powers of even life itself; and may we not say the same of the *protoxide*, *hydrated peroxide*, and the innumerable preparations of the same metal so universally employed by the most scientific members of our profession? What! employ no more *antimony* (tartar emetic) in fever and inflammation, or *arsenicum* (arsenic) in agues, *psoriasis*, eczema, elephantiasis, neuralgia, cancer, epilepsia, chronic rheumatism, secondary and tertiary syphilis; nor *cupri* (copper) nor silver in hysteria, chorea or epilepsy, spasmodic asthma, cramp of the stomach, or dyspepsia? No more mercury or quicksilver? Merciful Father! How can we treat diseases of the liver or spleen, strumous disease, jaundice, biliary disarrangements, porrigo, fever, inflammation, cutaneous disease, ulcerations of the throat, scrofula, ague, ulcer, chancre, lepra, scabies, mesenteric disease, ascites, enthetic disease, &c., &c. Shades of our great progenitor, *Paracelsus*, what will become of the human family, and the scientific practice of medicine without mercury and other minerals? Be not

uneasy, my poor brothers, nor irritable, nor impatient; the light of science already begins to break upon us. A little longer, aye, but a little longer, and the full blaze of truth will dissipate the darkness that has made us what we are, and our profession what it is.

We have already said that "medicine must be organic," or in other words, that it consists of a series of "organisms." In fact, considered in connection with *hygiene* and sanitary science, or the application of the laws of health (and this embraces all the advantages connected with air, exercise, labour, food, sleep, union of the sexes, recreation, relaxation, &c., &c., to which we add, sanitariums, gymnasiums, baths, and every discovery already made, or that may hereafter be made available, for sustaining or promoting health, or resuscitating it when reduced under the unfavourable circumstances too often connected with civilization), it is nothing more than this. No physician presumes to undervalue the importance of diet, neither in health nor disease; and the fact of his attaching so much importance to it is the best proof we can have of its utility. Improper food, we know, provokes or induces disease. Taking it for granted, then, that to the knowledge and proper application of diet the physician owes much of his success in curing, we may, by increasing our knowledge of this branch of medicine, doubtless, add to our success. We cannot, it is true, confound the science of medicine with dietetics; and yet it is more difficult to draw the line of demarcation than we might at first conceive, and would puzzle a very skilful professor to say where the one or other began or ended.

To understand the body in disease, we must study it in health, anatomically, physiologically, and chemically. We must know the position of its different parts, the composition of its different structures; how it assimilates the materials of which it is made, grows, sustains itself, and decays; and this cannot be done without understanding the chemical constituents of the substances we eat, the water we drink, the air we breathe, &c. And in this there is no difficulty when once we obtain an insight into first principles, for science is ever simple. "Let this truth," said Saint Pierre, "be deeply impressed on the heart. God has made nothing in vain. A scholar, with his systems and methods, finds himself stopped short in nature every step he takes; whilst furnished with this help, the rustic is able to unlock the door of knowledge." In so far, then, as regards the use

of inorganic substances in medicine, none but superficial thinkers can object to them. The question simply is, What is the order and economy of nature, as it relates to their use, and to the science of the subject?

Nature, throughout its every part, is governed by fixed principles, which, if understood and applied, lead directly to the health and happiness of mankind; but if neglected, violated, or misapplied, lead to disease, suffering, and death.

Of the abstract principle of life we know nothing; not of ourselves alone, but of the meanest insect that lives. We cannot understand the vital principle of a single grain of wheat, or why that within so small a germ there should exist the power (properly developed under laws which determine its increase and perfection) of feeding the nations of the earth, nor is it necessary for us to know. It is necessary, however, to understand the conditions upon which its reproduction, perfection, and increase depend; for upon these and similar principles the health and well-being of the human family rest. How, then, are our bodies built up, sustained, and continued?

The inorganic constituents contained in animal tissue are not very numerous; all of them, however, are found equally in vegetable bodies. The *iron* of our blood, without which we become pale and languid, and which constitutes the difference so strikingly seen in the ruddy cheeks of the country milk-maid and the poor delicate pent up seamstress of our thickly populated cities and towns, comes to us in the food we eat, the water we drink, and air we breathe. It is also very largely contained in some of our indigenous plants. The phosphate of lime, which gives strength and firmness to our bones, like iron, is found, more or less, in all the cereals or grain upon which animals and men depend. It is one of the great constituents of their organisms, and without which they could not live. And here we shall do well to note the unity of nature. To say that we ate the rock would appear extravagant, at first sight, and yet it is so; for, where nature does not dissolve its particles, either by the action of the atmosphere or through the fluids, so as to prepare it for vegetable assimilation, the agriculturist calcines or burns it. He knows, by experience, that neither the silicon necessary to give strength to the reed, nor the phosphate necessary to combine and nourish the gluten of the grain, could be supplied without it. The rock comes to

us, it will be seen, not directly but indirectly. It first supplies the grain, and the grain thus prepared is fitted to be assimilated with the animal body. The same may be said of all the inorganic constituents, the whole of which are chemico-vitally elaborated in the great crucible of nature. In no other way can inorganic matter be organized into animal tissue, nor need we say more than we have already done of the evils arising from the misunderstanding and improper application of crude inorganic substances as medicines. The value of iron as a constituent of animal bodies cannot be overlooked; the application of it, however, as now understood, is truly preposterous.

Dr. Winslow relates, "that a lunatic friend of his imagined his stomach required strengthening with iron, and that he swallowed everything he could get hold of,—nails, rivets, screws, the blade of a knife, and image of a saint, to the amount of twenty ounces." It might appear as if we wished to be satirical, if we said we see but little difference in this poor maniac and those who swallow fashionable steel pills and steel wine, or consent to be drugged under the name of science with metals, minerals, rusty iron, &c.* The quantity of iron found in an adult healthy body does not exceed a half-ounce. According to *chemical* analysis, there is found in about one thousand parts of blood,

* Speaking of delusions, Philips says: "In medical practice these are the most pernicious, and also the most disgraceful, as originating in men who profess extra wisdom. The venerated Vogel stated as the result of experience, that eating a roasted swallow was an antidote to angina or ossification of the heart; the same sapient professor alleged that toad powder, produced by baking live toads in a close vessel, was a specific against gout. Our honored Boyle taught that a drum made of the skin of a wolf was the best protection of flocks of sheep. Every age has follies or superstitions peculiar to its time, and there are few but partake of the weakness in a greater or less degree. Lord Bacon, with all his philosophy, betrayed a disposition to believe in the virtue of charms and amulets. Even Boyle, (of whom we have already spoken) seriously recommends the thigh bone of an executed criminal as a powerful remedy in dysentery. And Sir Theodore Mayerne, known to Commentators as the Dr. Caius of Shakespeare, who was physician to three English sovereigns, and who by his personal authority, says Dr. Paris, put an end to the distinctions of Chemical and Galenic practitioners in England, administered as medicine the secundines of a woman in her first labour with a male child; the bowels of a mole cut open alive; and the lungs of a man who had died a violent death; with many others equally absurd and alike disgusting."

That these delusions could have ever existed might almost be questioned, they seem so truly outrageous, and yet they are not a bit worse, and certainly not so pernicious as the fashionable metallic and mineral poisons of the present age. The former is delusion out of fashion, the latter delusion in fashion.

from seven to ten parts only of salts and iron; more than half of which is made up of the chlorides of sodium and potassium; the remainder of phosphates, soda, lime, magnesia, sulphate of soda, and a little phosphate and oxide of iron.

The minimum quantity of blood in a healthy adult is about twenty-five pounds, and in this, according to the analysis given, we should find as a minimum four ounces of inorganic or mineral constituent, of which the phosphate and oxide of iron would form a very small proportion. But why, if we take preparations of crude iron, lime, &c., to supply their deficiency in disease, may we not take preparations of *flint* to supply deficiency of hair. We merely drop the hint for some future scientific experimentalist. There are doubtless some hypercritical controversialists who would tell us our philosophy is untrue, because salt, which is an inorganic substance, is consumed daily, not only by man but by the lower animals, and that without which they would suffer and die.

To this we reply, nature has drawn the line of demarcation sufficiently wide, but not sufficiently distinct to enable us to detect the link that separates the three kingdoms. We may not know where the mineral, vegetable, or animal begin, nor clearly see the connecting link that unites them. We see, however, sufficient for our good, and are content to follow where nature leads, without seeking to dogmatise where we cannot see the end.

From the remarks already made, it will be seen that we base the "science of medicine" upon nature; and without presuming to be wiser than others, we venture to say, "other foundation can no man lay."

Chapter III.

CONSERVATIVE AND SECTARIAN MEDICINE.

"Not only in politics, but in literature, in art, in science, in surgery and mechanics, in navigation and agriculture, nay, even in mathematics, we find this distinction. Everywhere there is a class of men who cling with fondness to whatever is ancient, and who, even when convinced by overpowering reasons that innovation would be beneficial, consent to it with many misgivings and forebodings. We find also everywhere another class of men sanguine in hope, bold in speculation, always pressing forward, quick to discern the imperfections of whatever exists, disposed to think lightly of the risks and inconveniences which attend improvements, and disposed to give every change credit for being an improvement. In the sentiments of both classes there is something to approve. But of both, the best specimens will be found not far from the common frontier. The extreme section of one class consists of bigoted dotards; the extreme section of the other consists of shallow and reckless empirics." —*Macaulay.*

In using the word "conservative," we desire it to be understood in the sense which we use it. Every society of men, whatever the purpose or object for which they associate, must be "conservative," and medicine is no exception to the rule.

We have already given a brief outline of medicine prior to, and from the days of Galen, and have seen the causes that finally led to its declination. That it was purely an empirical system few or none will presume to dispute, although we cannot refuse our assent to the truth that there were all the essentials in it for working a science out, had its professors being sufficiently advanced. It is impossible to separate a profession from the age in which it exists; hence we find a uniformity of feelings and sentiments pervading all professions and existing sciences in every phase of society. A nation of savages must necessarily be governed by laws suitable to their savage tastes, and a profession can have nothing of practical science to recommend it where society is ignorant of its value. An enlightened people are the progenitors of science, nor is it possible for one to exist without the the other.

It has been said "the more ignorant the more conservative," and Macaulay, who is no mean authority, says "the extreme section of this class consists of ignorant dotards." In using these quotations we do not presume upon their infallibility; we do say, however, that any body of professors who are so conservative as to exclude all light, or who grope in the glimmer of twilight, with just sufficient vision to detect the most prominent objects that surround them, whilst they lose sight of the more refined which the sunlight of science would bring distinctly into view, are in a truly dark condition. Hunter said,

"It may be useful, as well as entertaining to remark, that *improvements* in medicine have always been among men an object of contention. A little reflection on human nature will show that *vanity* is the principal source of *this absurdity*. All men wish to be respectable, and most of them to pass in the world *for what they are not;* for being *so very acute, judicious, and learned*, as to need *no new instructions*. Hence *professors* assume a decided and dictatorial character, affecting to have gone to the *bottom of everything*, and to have *overcome every difficulty*, either by the natural powers of their understandings, or by the severity of their studies and perseverance in the pursuit of knowledge. *Old men*, besides, can seldom bear what they think an inversion of the natural order of things, that younger persons should instruct them. Of all men, *teachers* of every kind bear this with most impatience. For that reason we see, in fact, that the *seniors of schools, colleges, and public foundations* have generally been the most obstinate in *shutting out light*, and claiming a birthright for *opinions* as for *property*. It is easy to see that *such men* will resist *new doctrines* with more obstinacy than the rest of mankind, perhaps with *inveteracy*, in proportion as the doctrines are *well founded and readily credited*. They will be sensible that many persons who embrace the *new opinions* will call to mind *many looks of importance and expressions of vanity* which must *now* appear truly contemptible."

We are fully aware of the inutility of introducing quotations, or of saying or doing anything with a view to affect "conservative" medicine: secure in its corporate fastness, it is completely shut in from the stray arrows of professional criticism. It knows this, and laughs at every attempt that its best friends have hitherto made to awaken it from its dull stupor. It is not with this object, therefore, that we write; but rather with the hope of awakening society, and the individual members of our profession, to a consciousness of the degraded and pitiful condition to which medicine is reduced, in consequence of our supineness and want of self-government. "All well-informed and experienced members of the medical profession are painfully aware," said Sir John Forbes, "of the great imperfections of their art, and its inadequacy to fulfil, in a satisfactory manner, much that it professes to accomplish." But why is it that we are powerless

to improve medicine, or why should "conservative" darkness overshadow all progress, and reduce us to utter helplessness? "Early and continued habit," the same writer has said, "comprising not merely direct instruction, properly so called, but the influence of habitual example, deference to seniority and superiority, unconscious imitation, &c., induce conventional belief of the strongest kind,—strong as demonstration itself,—and create a sort of wizard circle of power, beyond which the mind of the disciple, however bold, scarce ever dares to wander." As a principle, "conservatism," properly understood and wisely applied, is productive of great good; indeed it may be truly said to be the binding power which unites the interests of men, and binds into one compact mass the elements of the whole. Like other principles, however, it has two sides, and becomes a good or evil in proportion as it is used. Is it true that the progress of the arts and sciences depends upon the intelligence of society? Is it true that there is a link which unites the one to the other, and that, apart from an enlightened popular opinion, there can be no practical science? If so, where is the hope for medicine? Education, to be generally useful, must be diffused throughout society. If ignorance is the parent of deformity and vice, and knowledge the great lever by which to raise the human mind, in what way can science be appreciated but by education? Wisdom cannot be properly estimated by the foolish, nor can science reap the reward due to it where folly and ignorance rule. How then shall we improve medicine, and raise it up to a practical science? The answer is by education and a wiser and more truly "conservative" policy. It is the interest of medicine, in its true relation to society, that we must "conserve" if we hope to "conserve" ourselves. Our medical corporations grew out of times altogether dissimilar from our own, and are no longer fitted for the changes which have outgrown them. It is in vain, therefore, that we seek to sustain our position under the shadow of their wings. Our age is rapidly advancing, and freedom in medicine, as in all other professions, is marching on with hurried steps.

To understand the subject clearly it will be necessary to briefly glance at the modern history of medicine, and this will be the more necessary, seeing that we have engaged to give an outline of medical dissent.

Prior to the dissolution of our old monasteries, during the reign

of Henry VIII, we had no medical corporations. The reason of this was because medicine, like divinity, was under the control of the Catholic Church. It is true there was a company or corporation of barber surgeons, but this was an ordinary trade affair of earlier date. Surgery at that time was a branch of the barber's profession, and their corporation was nothing more than that which obtained with all other trades. Harrison, in his History of London, tells us that "the company of barbers (who were the only people that were originally permitted to practise surgery) was incorporated by letters patent of King Edward IV., in the year 1461, by the name of 'the *Masters* or *Governors* of the *Mystery* of the *Commonality* of the *Barbers* of *London*.' In the year 1512 an Act was passed to prevent any but barbers practising the art of surgery within the city of London, and seven miles round. *At length several persons who were not barbers* being examined and admitted as practitioners in the art of surgery, Parliament united them in the third year of the reign of Henry VIII. by the appellation of 'The Masters or Governors of the Mystery or Commonality of *Barbers* and *Surgeons* of the city of London.' Thus the company obtained the name 'Barber Surgeons,' which they continued to enjoy, when in the year 1744 the surgeons were, by Act of Parliament, formed into a separate body.* It was in the year 1518, just six years after the incorporation of the barbers and surgeons, that the College of Physicians was founded." "*How learned and how liberal*," says Dr. Guy, "the founders and first elect of the College of Physicians were; how they brought their *learning* and *theology* from Oxford, their physic from Leydon, Padua, and Bologna; and their wealth from church livings and preferments; or how tenacious they were of their rights over barber surgeons and apothecaries,* insisting on superintending the operations of the one, and directing the examinations of the other; how in the forty-first year of their existence (1557) they graciously forgave Dr. John Geynes, on his humble recantation, his heresy in impugning the infallibility of Galen (strange lesson this in the matter of infallibilities); how they received a royal visit, and enrolled among their fellows a Marquis of Dorchester, and the Dukes of Montague and Richmond; in a word, with what dignity, gravity, and authority they comported

* The Grocer and Apothecary formed, at this date, one profession only, but were not incorporated like the "Barber Surgeons."

themselves, may be found written in many a page of authentic history." * * * *

"I shall shortly have to speak of their relations with the barber surgeons, but at present shall content myself with showing that the three existing representatives of the medical profession, in a comparitively rude and undeveloped state, could be found consulting together, and co-operating within a century of the foundation of the College. We see them assembled around the bed of Prince Henry, eldest son of James I.; and we learn that physicians, chirurgeons, and apothecaries were dismayed and perplexed, and driven as a last resort to a local application in the shape of a *cock cloven by the back and applied to the soles of his feet.*"

The lesson we learn from the preceding quotation is the condition of mind existing in this old corporation, from the foundation of the College, 1518, down to "Dr. Geynes' recantation," and the "application of the cloven cock to the soles of the feet of the eldest son of James I." From these dates to the present, the Government, in order to satisfy the numerous medical interests that have from time to time arisen, has incorporated in the United Kingdom no less than twenty medical Companies, to whom it has granted the exclusive right of licencing all who presume to study and practice medicine; thus shutting out every independent thought, and robbing alike the profession and public of the national taste and genius from which alone improvement can arise. How strangely infatuate; "conservative" medicine cannot see the impropriety of such a policy; nor the profession the wisdom of altering it. What then? Why just this: society is undertaking the task, and whether we assent or not, it will assuredly be done.

Who so blind that cannot read the signs of the times in the murmurs that now and then reach us from the advanced minds of our profession, and from the encouragement which irregular medicine everywhere receives from the public.

"The State in licencing a man to practice medicine, need, I think, trouble itself only with two questions,—1st, is the candidate of an age for understanding civil responsibilities? and 2nd, is he competent according to a proper standard of competency.

"As regards the student, why should he be forced to learn in a particular manner, or at a particular time. * * * Let him choose

his own way of learning. If the resolutions (of the colleges) represent the best mode, he will need no compulsion to follow it; if they be not the best mode *a fortiori*, let them go. The system, in my opinion, exercises a depressing and deleterious influence. * * * It tends entirely to spoil the natural competition of schools and teachers. There is something in all this which looks like what in commerce is called 'protection,' but we may see here, as people have long seen in other markets of supply and demand, that *protection may be as pernicious* a gift to the protected, as it is an unjust and impolitic treatment of the public."*

Mr. Simon has enunciated a truth, a great truth, which the individual members of our profession would do well to consider. Protection is so "pernicious a gift" that at the present time there are thousands practising medicine with no legal right; whose education cost them nothing beyond their own exertions, and these are increasing daily.

Of the folly of legislating upon the subject we have had ample proof. Prior to 1858-9 every effort was made, by the collection of facts, relating to unlicenced medicine, and these "facts" were laid before the Government, and an "Act" passed making it penal for anyone to use any of the titles belonging to the twenty medical corporations. But of what use has it been? Has it arrested irregular practice, or given a single advantage to the profession not previously possessed? Certainly not; on the contrary, it has positively made the first advance towards qualifying "irregular" practice, and there can be no doubt but that this will be worked fully out in future.

We give the following from *The Lancet* of October 28th, 1854:—

"Whenever the important subject of the prevention of *unqualified* persons from practising medicine has come before the public, unprincipled quacks and ignorant legislators have opposed any scheme for the purpose, on the absurd plea that it would infringe the liberty of the subject. England has been called the "Paradise of Quacks," and a Minister of the Crown endorsed the axiom by this memorable quotation—

'That the pleasure is as great
In being cheated as to cheat.'

One of his successors in office, however, not appreciating either the morality or the expediency of such a doctrine, made lately a striking commentary upon it,

* Address to the Medical Teachers' Association, London, 1868.

by ordering the prosecution of a notorious quack for having cheated a patient of his life. It has been too much the fashion to regard the suppression of illegal practice as affecting merely the practitioners of medicine—that their interest only is involved in the matter. There never could possibly be a greater mistake. However much a stringent law to suppress illegal practice might benefit the profession, we unhesitatingly affirm that such a measure would confer a far greater benefit upon the public at large. Those whose daily duties call them to the bedside of the sick and the suffering, are constantly in the habit of witnessing the dangerous effects of the practice of medicine by ignorant persons. Cases occasionally come before the public in the report of a police court, or of a coroner's inquest, of poisoning by some potent drug ignorantly administered, or of death from some serious disease wrongly treated. But cases of this kind, that never meet the public eye, are undoubtedly of daily occurrence. It is the practice of those who impose upon the public by false titles or quack nostrums to leave their patient in the time of his greatest danger, and the qualified attendant is merely called in at the closing scene to give his assistance in a hopeless case, and a "certificate of the cause of death." *We do not overstate the fact when we assert that thousands of lives are annually sacrificed in England to the ignorance of unqualified practitioners. That the members of our profession are deeply injured by the want of a stringent law to prevent illegal practice, we are willing to admit. That they should be allowed to suffer under such an injury is a disgrace to the legislature. For thirty years we have fought for that protection in the pages of this journal, and until that act of justice is consummated we shall continue the struggle.*

"Those who can carry their memory back for the last quarter of a century will see something of hope in the future. Parliament and the public see very differently now to what they did on the subject of protection, and it is certain that no measure of *Medical Reform will be carried that does not contain a stringent clause for the prevention of unqualified practice.* Persons falsely pretending to be lawyers are punished as criminals. An Act of Parliament has decreed that the forger of the "Hall mark" upon base metal shall be treated as a felon. But the public have no protection against any ignorant knave calling himself a physician or surgeon, and practising as such. Property is held sacred. Life is treated as worthless!"

Now suppose we admit the truth of all this. "For thirty years" (the editor says) "we have fought for that protection in the pages of this journal," and after obtaining and testing it for ten years, we ask where the advantage is? We know it will be said the "Act" is not stringent enough, and that it has failed, not from the fault of legislation, but from the "ignorance" of legislators, who could not be prevailed upon to introduce a clause prohibiting illegal practice. Of course they could not. It was altogether beyond their powers; they could not compel the public to swallow State physic, and was forced to admit certificates of death from all who administer to the sick. The mere forms "certified" and "uncertified" cannot alter the fact; there it is, not the sequence of the "Act," but the result that necessarily grew out of it.

But "why," asks Mr. Simon, "should the student be forced to learn in a particular way?" exactly so; or "why at a particular school;" or why, we ask, be compelled to pay so dearly for that which he might possibly obtain at a tenth part of the cost? What matters it to any body of men where or of whom I have learned my profession if I know it? Why, in the name of common sense, should all the advantages of the profession be consigned to twenty colleges, and the individual enterprise of its members be entirely annihilated? That it is possible to hold twenty thousand educated men in such a state of bondage we see from the facts enumerated; but if we did not see it and feel it so palpably we should be altogether inclined to doubt it.

Dr. Moxon, in addressing the students at Guy's Hospital, October, 1868, says—

"This is the true theory of medical education: we must have minds disciplined yet free; and these opposite requirements must be supplied from opposite sources. Freedom you can only get from yourselves. The medical council will discipline you, cutting your garment of learning to their regulation model of a doctor. They carry their discipline too far; they fill every hour of your day. Yet, what can they, in their 'curriculum,' offer you in place of that self-help for which they leave you no time. Your course of study will be in stages; layers of learning will have to be deposited on you like geological formations, or coats of paint, or you will be put together like a plaster image—the legs and body crumbling while they make the head * * * * We shall try to make you learned—a *vir doctissimus et ornatissimus et clarissimus*. Now, remember, while you are getting all the fashionable learning, that the newest patent clarified candle may give no better light than a well managed dip."

These very judicious remarks of Dr. Moxon have found no response, and he does not care, we presume, to become a martyr just yet. His address, the Editor of the *Lancet* tells us, "is a curious mixture of the figurative and practical." We see in it, however, the address of a man labouring under strong convictions, but powerless to give them free utterance. We see also in the Editor of the *Lancet*, a man who knows a great deal more than he cares to say. To his keen perception—the future, we are inclined to think, is much clearer than it is to the majority of his readers: but, be this as it may, it is clear enough to us, and, having no interest apart from our profession, we prefer to speak our thoughts freely.

That the position of "conservative medicine" is most anomalous, we are compelled to admit, for certain it is, that it can barely hold its own against the encroachments of dissent. Of its powerless-

ness to advance, except through the progress of intelligence, we have the evidence of the last quarter of a century or more, for not until the depletive practice had been beaten out, would it consent to yield a single inch. Bleeding was the *ne plus ultra* of practical science, and it was heresy to question it. It is gone, however, and with it the terrible sacrifices that followed in its wake. We name it with no wish to rake up old errors, but only to show the "strange lesson of infallibilities," and point a moral for dogmatists.

But we are to speak of "medical sectarianism," and this we shall do with the same freedom as we have of "medical conservatism." "Every society of men," we have said, "whatever the purpose for which they associate, must be conservative," and this same principle holds good in 'sectarianism'; the difference is simply this—the latter does not commence until the former has acquired a power incompatible with the views or interests of some of its members. "Sectarianism" is nothing more than the link which unites the present with the future. It may be crude, dogmatic, rational, irrational, weak or strong; whichever it is, it is simply a manifestation of mind or struggle for more light and more freedom. Science knows nothing of creeds nor sects. Nature is the field it loves to explore, and it cannot, will not be "cribbed, cabined, and confined" within a circle.

Up to the time when Dr. Geynes read the recantation of his heresy before the Royal College of Physicians, and for full two centuries later, "conservative medicine" reigned supreme. The Royal College of Surgeons, had, about this date, become a respectable body. The old barber element had passed out of it altogether, and bleeding could no longer fraternise with shaving, although it was still content to play minor characters in the drama. Its power, since the year 1799, when the Parliament bought the famous Museum of the celebrated John Hunter, and presented to the College, and at the same time, or rather the year following, granted them their Charter, has increased at such an unprecedented rate, that it now commands the highest position, and laughs derisively at its great rival, the Royal College of Physicians. Supreme in power, it not only holds its members in bondage, but completely overshadows the judgment and policy of all. It is the fixed star from which the satellites of "conservative" physic are content

to receive their light. Now, if we consider the state of medicine from the origin of the GALENIC system, and the darkness that gradually overspread the world with the introduction and growth of alchymy, and remember that the science of healing having no independent existence, can never be other than a component part of society, we shall have a very good idea of its present condition, and understand the causes which have given birth to the numerous medical sects which at present agitate and distract the popular mind, and why they are loved as they are.*

As a writer, there are few that could supply his place, and as the representative of orthodox medicine in England, none; and yet how lamentably deficient in philosophy. He does not see that the "parasitical monstrosity of intellect, the offspring of scepticism and credulity that alternately reign," are nothing more than the outgrowths of the "ignorance and credulity" which, for two thousand years and more, have ruled the destinies of medicine. Medical Sectarianism despises, he tells us, "the teachings of true science," * * abandons the "right path, and for the sake of gain, makes open profession of some misshapen form of medical heresy." "True science," indeed; who that knows anything of philosophy, and the nature of the human mind, could write such *verbose*. That there is much error interwoven with all "medical sects" is true; there is not one, however, that legitimate physic might not learn something from, if it could come off the "high horse" which it rides so unmercifully, and consent to walk by the side of its humble rivals; but this it cannot do. *It is a positive science, and its professors are in the most desirable state of 'perfection.'* They have, in fact, nothing to learn, and are consequently exceptions to all ordinary mortals.

* The Editor of the *Lancet*, No. 12, Sept. 20th, in his annual address to students for October, 1862, says, speaking of medical dissent, "Tainting the current of modern civilization, there is matured a *parasitical monstrosity* of intellect, the offspring of scepticism, and the credulity that alternately reign where spurious and imperfect knowledge and conceited indolence reign. Men and women, whose light and shallow mental soil has been cultivated beyond their capacity of assimilation, or misled by the pitiable spirit of false liberalism which thinks it a proof of superior intelligence to despise the teachings of true science, if they do not succeed in imparting their foolish convictions to others, not seldom do succeed in bending some sordid minds to abandon the right path, and for the sake of gain, to make open profession of some misshapen form of medical heresy."

LIVING WITHIN A CIRCLE, they neither have nor require any of the aids from without, and must, as a sequence, DIE THERE.

Of "Medical Sectarianism," little need be said beyond what has already been advanced. All sects have some truth in them; nor are we to presume that "conservative medicine" is without it. On the contrary, it has handed down the knowledge of whatever changes have taken place, and represented fairly the general intelligence of every age; and as the progress of the present generation is reflected from the past, or has grown out of the necessities of mankind, we accept our profession with all its failings, as the parent of the present and the future. To quarrel with men because they differ in opinion is truly absurd. We might, with just as much reason, quarrel because we differed in stature, or because some had black skins and some white. In all ages of the world men have differed, and history points to these "differences" as the securities of freedom. Where there is no dissent mental stagnation reigns, and despotism rides roughshod over mankind. Accepting this as the philosophy of the question, we rejoice to know that medicine is not without its sects. How much mankind and legitimate medicine owe to HAHNEMANN, PRIESSNITZ, THOMSON, DICKSON, MESSMER, and their numerous disciples throughout Europe and America, few stop to consider, but if we call to mind that prior to their labours the practice of phlebotomy was in full operation, and that under the universal delusion, thousands were annually consigned to untimely graves, we may form some slight notion of its true value.*

HAHNEMANN doubtless mixed up some fantastical ideas with his theory of Homœopathy, but time, whilst it has removed these, has left us his *similia similibus cürantur*, not as entirely new, but as a practically realised fact, which we can safely work out in very many

* "There was hardly a morning at the Meath Hospital that some *twenty* or *thirty* unfortunate creatures were not phlebotomised largely. The floor was running with blood. It was dangerous to cross the prescribing-hall, for fear of slipping. *Patients were seen wallowing in their own blood, like leeches after a salt emetic*, and these disgraceful scenes continued for many years." * * "Leeches were applied, and over and over again the patient died while the leeches were on his temples—died as surely as if shot through the head; and an eminent apothecary assured him that there was then hardly a week that he was not summoned to take off a large number of leeches *from the dead body*." Remarks of Mr. Stokes. From a pamphlet on "Our Medical Liberties." By John Gibbs, Esq.

cases. Like the law from which it arises, it is part and parcel of the whole, and a principle which we accept with thankfulness as an adjunct of our art.

Of PRIESSNITZ and Hydropathy we cannot speak too highly. He, like Hahnemann, held some strange notions, but whilst these have past, the fact remains, that from him we have acquired a knowledge of hygiene—the recuperative powers of life, and of aqueous medication, which, until he lived and worked out by experience, were practically unknown.

To Dr. DICKSON, too, we owe a debt of gratitude. How hard and bravely he fought with prejudice for many years should be gratefully remembered by society, and medical reformers of every creed, for to him, more than to any other Englishman, the abolition of bleeding in inflammatory and other diseases is due. That there is much truth in his *chrono-thermal* views, every experienced medical practitioner is satisfied of, and because of that truth, and the work which he did, we desire to record our thanks.

Of MESMERISM, or animal magnetism and *galvanism*, much may be said of their utility in many forms of neuralgic, rheumatic and other diseases. They, too, have done their parts in awakening the mind, or developing the deeper mysteries of life, and because of this, we accept thankfully whatever good we have found in them. There is another reformer, however, of more real value amongst "medical sectarians" than any that we have named, but to speak of his labours and the results that have already followed from them, it is necessary that we should give a brief sketch of the man.

SAMUEL THOMSON was a New England farmer, and was born about a century ago. Of his early life, struggles, persecutions, &c., &c., we shall say nothing, having given their history many years ago, in a work entitled "A PLEA FOR MEDICAL BOTANY."* What we propose now to do, is to glance as briefly as possible over the causes which gave rise to the system which he advocated.

Of medicine, to the time when Dr. John Geynes recanted his

* This work was printed in the early part of 1853, by Mr. Saml. Moxon, of Leeds, whose kindly sympathies and encouragement during our early struggles we shall ever gratefully remember. He was one of a large circle of friends in that independent old town, who stood by us in our fight with professional prejudices and persecution, and through whose aid we have fairly won our position.

heresy before the Royal College of Physicians, 1559, we have already spoken, and we now refer to it, in order that we may remove all doubt as to the influence of GALENIC or herbal medicine up to that date. Now, if to this fact we add another, which is, that prior to the reformation, medicine was practiced under the authority of the Catholic Church, and that a general knowledge of the uses of plants was common among all classes of the people, we shall, by means of this clue, unravel much of the mystery that still envelopes its history in this country.

It was within a very few years of the date already named, *i.e.* 1559, that the early settlers or founders of the great American republic, (the Pilgrim Fathers) driven by the religious persecution of the age, sought relief by emigration. They were no mean order of Englishmen, but members of the more thoughtful and religious class, and carried with them not only their love of religious freedom, but their love of medical freedom also, With them medicine formed a branch of the Christian religion, as it did with Christ and the early disciples, nor had the changes of the times severed the tie that then united them. Here, then, surrounded with difficulties and sufferings, they held fast their integrity—practised and worshipped in security and peace, free from the tyranny of religious bigotry on the one hand, and medical bigotry upon the other. Of the endurance and strength of early impressions we need not speak, but the peculiarly thoughtful and settled character of the New England people owes its existence to this fact. With them, GALENISM or Herbalism still retained its force, and whilst America increased in population, not from England alone, but from all parts of Europe, the *habits*, *institutions*, and *professions*—(which had undergone a complete metamorphosis from the days when the first settlers landed in America)—were introduced also. With these later emigrants, medicine as known a century and a half earlier, had become extinct, whilst with the former it continued in its incipient state. America now rapidly increased in population, but with ideas totally dissimilar, and the practice of England and Europe, had found its way into all parts of the country—erected its standard of fitness and bound the people in the same chains. It was while thus, writhing under fetters which they had unwittingly helped to forge for themselves, medical freedom raised its head in a descendent of one of these brave men.

Samuel Thomson—(what a genuine English name and what wonder, that as Englishmen, loving liberty we desire to honour it as it deserves), was the son of a New England farmer, and was born in New Hampshire, anno. 1769. He was without education, but having received the medical impressions common to the people, became, in the simplicity of truth, the representative of their ideas.

The Galenic germ had been transplanted two hundred years before from this country, and there, unthought or uncared for, except by the descendents of the first settlers, it had taken root and sprang forth afresh to enlighten and bless mankind. In this poor man there was a strong mixture of *faith*, prejudice, and great physicical endurance. There was no Royal College of Physicians to enforce a recantation it is true. There were tyranny and power sufficient however, to imprison and torture him almost to death. His opposition to "medical conservatism" was as strong as his faith in simples, and having fought the battle of life, and assisted to win for America the medical freedom which now obtains, he left an example, in the results, that will endure so long as the country which gave him birth. His practice was exceedingly harmless, purely herbal, and altogether original. He was the founder of a "sect" known as "Thomsonians" which still flourishes in that country, and from whom have arisen many other sects much further advanced, through whose exertions great numbers of highly valuable remedies have been discovered, and the practice of medicine greatly improved. At the time when Samuel Thomson lived "conservative medicine" reigned supreme, now it is in the minority, despite the efforts that it has made within the last quarter of a century to regain its lost prestige, whilst medical dissent on the other hand has not only increased, but its schools and colleges are increasing rapidly. Of the progress of medical freedom in our own country we shall merely say, it is seen in the efforts of 'conservative' medicine to sustain its declining power, in the attempts of the "Medical Council" to exclude the national genius of the country—enforce a spurious education upon students, and in the legislative powers which it foolishly calls to its aid. Powerless to arrest the progress of free thought, it unwisely seeks by means the most futile, to hold a position altogether incompatible with the spirit of the age.

For ourselves, we can truly say, we have but little sympathy with

"sectarianism" of any kind, we nevertheless rejoice to know that sects are so numerous, not for their own sakes so much as for the future good of our profession.

Already HOMŒOPATHY, HERBALISM, and HYDROPATHY, have to a great extent coalesced with medical Eclecticism, from which free schools are slowly arising in different parts of the country. Without assuming too much for these pioneers of progress, however, we nevertheless venture to say, another quarter of a century cannot fail to win for the profession and country complete emancipation from the trammels of conservatism, and open it out to the enterprise of its members.* That this is a consummation much to be desired, every thoughtful member of society will readily admit, and that it must reach us, as it has already done America, we feel assured. "Medical conservatism" and "medical sectarianism" are both doing their parts, and as a student of nature we strive as best we can to do ours.

* "We have recently heard a new phrase, viz., *of free trade in medicine*, and even Members of Parliament are not wanting, ready to advocate such a state of the law. There is, however, one restriction which I would impose. It is this, * * * that they who may be permitted to prescribe, should be compelled to first study *Anatomy*, *Physiology*, and *Pathology*."

MARSHALL HALL, M.D., F.R.S., &c., Practical Observations and Suggestions in Medicine. JOHN CHURCHILL, Princess Street, Soho, 1854.

MARSHALL HALL has been very severe in the above work upon every kind of quackery, particularly upon *Homœopathy* and *Hydropathy*. "The Public," he says, "have a strange idea of medicine—an idea little different from superstition: there is nothing too trifling, *not even* homœopathy; nothing too violent, not even the feats of PRIESSNITZ, and of St. John Long; nothing too absurd from the Royal touch, to that of a hanged man's hand, Perkenism or *Mesmerism*."

We shall not stop to question the statements of MARSHALL HALL with regard to the "Quackery of Homœopathy" and "Hydropathy." We rejoice to see, however, that he thinks them amenable to education. This is exactly what is wanted, and the "Members of Parliament" and others who, like them, believe "free trade" in medicine desirable, think "free trade" in medical education equally so. Had MARSHALL HALL not been dwarfed by false teaching, he would have known that the quackery of which he complains is a result of the monopoly under which he has been trained.

Chapter IV.

MEDICINE FROM THE REIGN OF HENRY VIII.

"One generation passeth away and another generation cometh, but the earth endureth for ever. The sun also riseth, and the sun goeth down, and hasteth to his place from whence he arose. The wind returneth again according to its circuits; all the rivers run into the sea; yet, the sea is not full; unto the place from whence the rivers come, thither they return again. All things are full of labour; man cannot alter it; the eye is not satisfied with seeing, nor the ear filled with hearing. *The thing that hath been, is that which shall be;* and that which is done is that which shall be done; and there is nothing new under the sun. Is there any thing whereof it may be said, See, this is new? IT HATH BEEN ALREADY OF OLD TIME, WHICH WAS BEFORE US."—*Ecclesiastes, Chap. i., v.* 4-10.

To understand a science, it is necessary not only to know the root from whence it springs, but to trace its growth from the *germ*. Its first principle or natural base must be distinctly seen, and the way in which it has been built up or pulled down as "distinctly" traced. Prior to the time of Henry VIII, the practice of medicine was confined exclusively to the Catholic Church. "From the seventh to the twelfth century, the PRIESTS and MONKS may be said to have held an undivided sway as physicians throughout Europe." Pettigrew tells us, in his "Medical Superstitions," "how completely 'Priests' and 'Monks' took possession of every portion of the human frame, external and internal; and how determined they were to refuse even the smallest part to any other's care. *As long as men's eyes were blinded to their imposture, they could, without danger of detection, confine the whole practice of medicine to themselves.*" That this was the case we very well know; in seeking to hold fast that which the Church had consigned to them, however, they did no more than the "medical" church now does. Healing the sick was a "legal right" belonging exclusively to it, and, of course, was as carefully concealed from the vulgar and uninitiated; and as legally protected as it is at the present time. It was not simply a "*legal*" but a

"*divine right*," that had, it was presumed, descended directly from Christ and the Apostles, and was therefore incorporated with, and formed its life and soul: nor had Christians up to this date ventured to dispute its authority. As time gradually stole on, however, changes arose, and not only its "legal" but even its "divine" right began to be questioned. It is well known that at this period, or soon after, the Jews practised "medicine" by the aid of copies of the ancient authors, which they are said to have preserved and studied. They no doubt merited the patronage bestowed on them by some crowned heads, and other men of rank and influence, who were bold enough to seek their aid in spite of the Church's commands. Yet they were for the most part subjected to persecutions. * * * By Intriguing with Popes and Councils, it was enacted in the Canon Law that no Jew could be a physician: and formal excommunication was obtainable against those who sought their aid. *These laws were stringently enforced against offenders, unless they were strong enough by their position to resist such anathemas and prohibitions.* It may be gleaned from various sources that their principles and practice were of a far higher order than that of their rivals and persecutors; but in common with all other sources of light and truth, the records of their practice were trampled under foot and destroyed, in order more surely to build up bigotry and superstition. It was in vain that the Church sought to retain power by reference to its "divine mission," corrupt within and without, its influence declined, until it was no longer possible to confine the practice of medicine entirely within the walls of their respective monasteries, as enjoined by the command of Pope Benedict the ninth, and Urban the second, in the seventh century. Blind to the philosophy of progress, they sought to sustain their position by delegating "medicine to the lower clergy, whose ignorance and vice were especially notorious." The Prelates, Archdeacons, and superior Clergy, were prohibited from practice altogether.

From these facts we may easily understand the latitude that arose. The Church gradually lost its influence, not in medicine alone, but in the affections and religious feelings of the people, until it finally culminated in the terrible collapse of the Reformation, or, in other words, in the final wreck of the good with the

BAD; and medicine thus reduced to CHAOS, was no longer capable of satisfying the wants of the age. The talent and learning of the *prelates*, *archdeacons*, and *superior clergy*, was still a power, however, and the fragments of this *shattered science*, which the Church could no longer retain, were combined with the State, in the "ACT" of the third year of Henry VIII, and reads as follows :—

"To the KING our SOVEREIGN LORD, and to all the lords "spiritual and temporal, and Commons in this present Parlia- "ment assembled. Forasmuch as the science and cunning of "Physic and Surgery (to the perfect knowledge whereof be re- "quisite, both great learning and ripe experience) is daily within "this realm exercised by a great multitude of ignorant persons, "of whom the greater part have no manner of insight in the "same, nor in any other kind of learning: some, also, can know "no letters on the book, so far forth that common artificers, as "smiths, weavers, and women, boldly and accustomably take upon "them great cures, and things of great difficulty, in the which "they partly use *sorcery*, and *witchcraft: partly apply such medi-* "*cines* into the disease as be very noious (nauceous) and nothing "meet, therefore, to the high displeasure of GOD, great infamy of "the faculty, and the grievous hurt, damage, and destruction of "many of the KING'S liege people, most especially *of them that* "*cannot* DISCERN *the uncunning from the cunning.* Be it therefore "to the surety and comfort of all manner of people, by the "Authority of this present Parliament enacted, that no person, within "the City of London, nor within seven miles of the same, take "upon him to exercise or occupy, as a PHYSICIAN or SURGEON "except he be first examined, approved, and admitted by the "BISHOP of LONDON, or by the DEAN of SAINT PAUL'S, for the "time being: calling to him or them *four Doctors of Physic* and "for *Surgery*, and other expert *persons* in that faculty; and for

"the first examination such as they shall think convenient; and "afterwards, always four of them that have been so approved, "upon pain of forfeiture, for every month that they do occupy as "*physicians* or *surgeons*, not admitted or examined after the tenour "of this 'Act,' of five pound, &c., &c."

2 "And over this, that no person out of the said City and pre- "cincts of seven miles of the same, except he have been (as is "aforesaid, approved in the same) take upon him to exercise and "occupy as a *physician or surgeon in any diocese within this* "*realm*; but if he be first examined and approved by the *Bishop* "of the same diocese, or he being out of the diocese by his vicar "general; either of them calling to them such expert persons in "the said faculties as their discretion shall think convenient, and "giving their letters and testimonials under their seal to him "that they shall so approve, upon like pain to them that occupy "contrary to this Act (as above said) to be levied and employed "after the form before expressed."

3 "Provided always, that this 'Act,' nor any thing therein "contained, be prejudicial to the Universities of OXFORD and "CAMBRIDGE, or either of them, or to any privilege granted to "them."

"*Memorandum.* That Surgery be comprised in this 'Act,' like "as Physicians, for like mischief of ignorant persons presuming "to exercise Surgery." *

From the statements contained in the above "ACT," and the preceding general remarks, we cannot fail to discover the condition of medicine at the dates named. In order to connect the links of the chain, however, it will be necessary to trace its progress from this time. The Church, it will be remembered, was the supreme power when the COLLEGE of Physicians was founded, and the same persecuting spirit which tracked the footsteps of free thought, and chained

* 3 Henry VIII, c. xi.

the mind to religious dogma, equally obtained with medicine, hence the "recantation of Dr. John Geynes for impugning the infallibility of Galen," and even that of Dr. Thornton, down to the early part of the present century. Dr. Thornton was a man of more than ordinary talent, and in his splendid work on the "Philosophy of Medicine," published 1813, he ventured to speak too freely of "medical bigotry." Every attempt that had been made to improve the profession had been met in the same spirit, and so powerful were these fanatics, that it was as much as a man's liberty was worth to hold an idea contrary to them.*

Speaking of HARVEY, Dr. Thornton says, "In a letter to Professor Riolan, this good man complains of his treatment," "some say," he says, "that I have affected a vain commendation of myself, from dissecting living animals, among which they deride my having made use of frogs, and mice, and other such contemptible creatures, and do not refrain from the most opprobrious language. It cannot be helped: but that DOGS will bark, and cynics pretend to mix with philosophers, but I shall take special care that they do not bite and destroy with their dog's teeth the very marrow of truth. They rail against me because *I do not answer* the surfeits they have belched up. Detractors, mimics of men, let them know that I never intend to read works that can leave nothing of solid sense behind them, much less should I esteem them worthy of an answer. It would be unworthy of me to return opprobrious language for theirs. I shall do better, for I will overcome opposition by truth: and if they will consider with me the anatomy of the vilest insect, they will find a GOD equally in the humblest as in the higher works of creation." Such, however, says Dr. Thornton, is the power of prejudice, that it was observed by Harvey, "That no physician passed the age of forty believed in his doctrine," and it is a known and melancholy fact that his practice declined from the moment he published his ever memorable discovery. The new doctrine at last getting into vogue, the senior physicians (says Malpigi) were inflamed to such a pitch, at BOLOGNA, that in order

* The assumed offence of Dr. Thornton was that he had patronised the baths of Mr. Charles Whitlow. After an apology, however, they consented to reinstate his name. Mr. Whitlow was a great botanist, and a man of splendid talents. He was not legally qualified, and it was a crime to recognise him. "Infamous," in fact, that's the word coined by these medical despots for those who exercise freedom of thought.

to root out heretical innovations in *philosophy* and *physic*, they endeavoured to get an Act passed whereby every graduate should be obliged to take the following additional clause to his solemn oath on receiving his degree. "YOU SHALL LIKEWISE SWEAR THAT YOU WILL WITH ALL YOUR MIGHT *(pro toto tui posse)* PRESERVE AND DEFEND THE DOCTRINE OF HIPPOCRATES, ARISTOTLE and GALEN, WHICH ARE TAUGHT IN THIS UNIVERSITY AND HAVE BEEN APPROVED OF DURING A LONG SERIES OF AGES, AND THAT YOU WILL NOT PERMIT THEIR PRINCIPLES AND CONCLUSIONS TO BE OVERTURNED BY ANY PERSON WHATSOEVER." Now, if we bear in mind that whatever was known of medicine and taught in the Universities of Europe, was, up to the Reformation, confined to MONKS and PRIESTS, that it had even to the reign of Charles I. scarcely emerged from their trammels, and was taught in a language of which the people knew nothing, we may easily understand its truly wretched condition. That there were great truths in the doctrines of HIPPOCRATES, ARISTOTLE, and GALEN, it is impossible to deny 'truths' which must ever shed a lustre around their names; it is no more possible, however, for colleges to enforce philosophy upon the ignorant, than for the ignorant to enforce philosophy upon them. There is one great condition that ever underlies human security and human progress, and that is "education," not exclusive or partial, but "general." This, and only this, can enable us to avoid the errors and evils of the PAST. It was not for the want of opportunity that we missed our way, but from the manner in which we used it. We starved the intellect of the masses, and pandered, or over-fed the favoured ones with luscious subtleties, until at length ignorance could no longer restrain its passions, and ruin and desolation with their iron hoofs trod out the accumulated light of ages.

Who will tell us, with all the boasted learning of our schools, that the light which we have blindly extinguished, shone not brighter and clearer than that which at present illumines our wandering footsteps? Lost in doubt, confusion, and division, our darkness becomes more visible with every attempt we make to escape the pitfalls that surround us. It is here where the Catholic Church missed its way. It had a mission; a great, a holy mission, but it heeded not the teaching of its DIVINE MASTER. Throughout the Gospels it is again and again repeated that the disciples of the GREAT "PHYSICIAN"

brought to him the halt, the *withered*, and the *leper*, those that were *lame*, *blind*, *dumb*, and HE healed them. Peter had mercy on a certain man *lame* from his mother's womb, "whom they laid daily at the gate of the temple," which is called "beautiful;" he took him by the right hand and lifted him up and immediately his *feet* and *ankle-bones* received strength, and he leaping up stood and walked, and entered with them into the temple, walking and leaping, and praising GOD.[1] Paul cried with a loud voice to him who was *impotent in his feet, being a cripple from his mother's womb*, who never had walked, "stand upright on thy feet," and he "leaped and walked."[2] The "beloved physician," LUKE tells us of the high priest's servant, whose right ear was cut off, how that JESUS touched his ear and healed him.[3] So also of the woman who had a spirit of infirmity eighteen years, and was bowed together, and could in no wise lift herself up. JESUS laid his hands upon her, and immediately she was straight. As an example to his disciples, Christ laid himself out to cure the sick. He went about into the cities and villages healing every sickness and every disease among the people,[4] and the Christian Church, through the Apostles, received its authority to Heal all manner of sickness.[5] Everywhere throughout the sacred writings, healing is enforced, not only as a social duty, but as a religious obligation, that no Christian people can safely overlook. The prophet Isaiah gave his command to the good king Hezekiah, Take a lump of figs, and they took and laid it on the boil, and he recovered.[6] Naaman, also captain of the host of the king of Syria, repaired not to Elisha in vain to recover him from his leprosy: "Go and wash," he responded, "seven times in Jordan." "Then went he down and dipped himself seven times in Jordan, and his flesh came again like to the flesh of a little child, and he was clean."[7] *

It is not our purpose to engage in controversy with those who presume to dispute divine authority, our facts are strong enough without it. That the practice recognised as legitimate by the Church was (if not scientific) simple and rational, we are well satisfied

1—Acts 3 chap., 7 and 8 v.
2—Acts 14 chap., 8 v.
3—Luke 22 chap., 50 v.
4—Math. 9 chap., 35 v.
5—Mattb. 10 chap., 1 v.
6—2 Kings 20 chap. 7 v.
7—2 Kings 5 chap., 14 v.

* Unity of Medicine, 1858; H. Bailliere, 219, Regent-street, London.

from the writings that have descended to us. And although we are compelled to admit its gradual decline and final subjugation to the chemical infatuation that superseded it, we nevertheless know that it retained an influence and vitality that lives on to the present day.

How strange is truth, and how wonderful to our finite understandings are the ways of Providence. Is there any thing whereof it may be said "See, this is new?" What is "new?" If we reply to the interrogation with anything like satisfaction, it can only be by saying, "that which we first recognise, and which accords with reason and experience, harmonises with science, and the working out of human good through the agency of natural laws."*

The base or foundation of medicine, if found anywhere, must be in nature, and strange as it may appear, we shall have to retrace our steps, and return to the point from whence we diverged before we can recover any part of that "science" so long lost. Let us not blush at this confession, but rather acknowledge our errors, and submit to the change that must inevitably overtake us.

Let us quietly consider the results of our past policy. "The Church of the middle ages had set up in its philosophy a universal science, and had fortified it with the whole authority of a religious belief * * To deviate from established doctrine was heresy; it was synonymous with the rejection of the revelation from heaven. Tortures and the stake awaited the man who thought freely, or otherwise, than the Church." It was to this bigotry and despotism that we owe the decline of medicine. The "reformed" or "Protestant" Church, having, in connection with Henry the VIII., destroyed the monasteries, confiscated the lands and extirpated the monks and priests, set up business for itself, and endeavoured by FIRE and FAGGOT to enforce dogmas repugnant to the spirit of the times. Christianity, known only by name, its purity and simplicity were no longer felt, except by the brave few who vainly strove amid the general dissolution to hold fast their integrity. Fire, torture, imprisonment, expatriation, and death, followed hard upon their footsteps. A fragment, however, escaped, and under circumstances all but incredible, transplanted the germ of medical truth to a new soil, which gives promise of much fruit.

*Nature knows nothing of terms. "New" and "Old" belong to human institutions, not to the eternal and immutable laws which govern them.

It was in the year of our Lord, 1620, after enduring several years of hardship in Holland, that a company of our earnest, brave countrymen, to the number of forty-one, with their wives and families, making in the whole one hundred and one, left their native shore to seek a home in a far distant land, where they could enjoy liberty of thought, and found a church free from the corruptions which prevailed at home. In two small vessels only, one the SPEEDWELL of eighty tons, and the other the MAY-FLOWER of one hundred and twenty tons. (The former, from its bad condition, soon after leaving Southampton, was found unfitted for the voyage, and the "May-flower" after receiving the passengers and luggage, with the exception of about twenty, finally sailed from the port of Plymouth, on the 21st of August.) Of their sufferings, or the many incidents that transpired before their little bark reached her destination, it will be unnecessary to speak; if we say, however, that the voyage occupied ninety-eight days, some idea may be formed of the difficulties and dangers through which they passed. In order to understand the men and the means at their command, it will be necessary to say that they were not of the working class alone; the principals were men of good position and moderate means, and their families included servants, male and female. They were a religious people, and apart from the names of "masters" and "servants" it might be difficult to tell the one from the other. They took with them also Christian pastors, or ministers, who, although dissenting from the "Protestant Church" at home, were nevertheless men of education and learning, and these filled the double capacity of doctors of divinity and doctors of medicine. The Rev. Samuel Fuller was one of these, who, until his death, which took place in 1633, filled this double office; and his son, the Rev. Samuel Fuller, from the death of his father, filled the same office.

Memorandum. "SAMUEL FULLER came in the May-flower in 1620, and was the first physician and surgeon in New England. He rendered important services to the colony at Salem, both in the line of his profession and in relation to their spiritual concerns, as appears from a letter of Governor Endicott, dated May 11th, 1629, to Governor Bradford, in which he observes, 'I acknowledge myself much bound to you for your kind love and care in sending Mr. Fuller amongst us, and rejoice much that I am by him satisfied touch-

ing *your judgment of the outward form of* GOD'S *worship*. He rendered similar services to the company of Governor Winthorp, soon after their arrival, as appears from his letter to Governor Bradford, dated at Massachusetts, June 28th, 1630, *at which time they were severely afflicted with sickness*. He was deacon of the church of Plymouth till his death, which was sometime between July 30th and October 28th, 1633. * * * Samuel, the son, remained in Plymouth till his settlement as the first minister of Middletown, Dec. 26th, 1694, at which place he occasionally preached during the sixteen preceding years." The following extract is from the history of Rehoboth. "It was voted by the town to send a letter to *Samuel Fuller*, of Plymouth, that he will come upon trial according to his own proposition, the town is willing to accept him, and in case the town and he do accord, the town is willing to accommodate him in the best way they can for his encouragement. It was also voted and agreed that his mother should be sent for, to see if she be willing to come and dwell amongst us, *to attend the office of* MIDWIFE, to answer the town's necessity, which is GREAT."*

From this quotation we learn that although the Protestant Church no longer retained the practice of healing the sick as a part of the Christian mission bequeathed by the GREAT PHYSICIAN, its master, it was nevertheless incorporated with the religious institutions of the early settlers in New England, and we also know that its influence continued more or less until the beginning of the present century.

The names of FULLER, ROBINSON, SKELTON, HIGGINSON, BRIGHT, SMITH, and others, who were their pastors and physicians from 1620 to the end of the century, are cherished very dearly by their descendents, and devoutly venerated and honoured by their countrymen, of whom they may indeed be proud, and with whom we may well rejoice.

"I walk by mighty Hudson's stream,
Tread lands beyond the Atlantic sea,
The distance is but as a dream,
It seems my fatherland to me.
I listening sigh, for all around
The small bird's music fills the air,
How can I deem it foreign ground?
Why, all my well-known flowers are here."

* Recollections of the Pilgrims. By W. S. Russell, Boston. George Coolidge, 1846.

I look, and meet a brother's face,
I am my kindred folk among,
I speak not to a foreign race,
They answer in my native tongue.
I walk into the house of GOD,
And they address the self-same prayer,
I view the neighbouring burial sod,
The kindred dust co-mingles there."

Here, then, our brave hardy fathers, when driven by persecution from their native country, found a home, and religious, political, and medical freedom,—a soil fitted to receive the germs which the old country had cast off.

In looking back and endeavouring to grapple with the amazing results that have followed, the mind is lost in astonishment. Scarcely two centuries and a half have passed since the tiny "May-flower" sailed from our shores with the life of a mighty nation within its pent-up timbers. How it escaped the perils of the deep, disease, and decimation, that we might well anticipate would follow in its track, is a problem that has baffled the best navigators and wisest of mankind. We can only wonder, and with thankful and grateful hearts accept it as one of the many mercies that ever follow in the order of Providence. AMERICA! what a power it has become, and what a lesson it reads to human vanity. COLUMBUS, its great discoverer, defending the shape of the earth and the possibility of circumnavigating it before the most learned of the Spanish kingdom, treated only as a dreamer worthy of ridicule! So it has ever been, however, and doubtless ever must be, until time shall soften down the prejudices of mankind, and education and experience enable us to understand ourselves better. There are those who see in human error the negation of all truth, and assume that because *religion* and *medicine* have failed to satisfy the mind, that they are therefore no longer worthy of trust. This is one of the great mistakes of the present age. Christianity is not at fault because of the follies of men, nor because the Church, unmindful of the conditions upon which its vitality rested, neglected to work out its mission. It was bound to follow in the footsteps of its master, upon pain of forfeiture of all its high privileges. Liberty is the life and soul of all Christ's teaching. He taught no creed of any kind. Justice, freedom, love to GOD and MAN, and all that can ennoble humanity, form the beginning and end of all His doctrines.

This, the Church neglected; it persecuted with imprisonment, fine, and death, all who dared to dispute its dogmas; neglected the great practical virtues for which it was established. It neither "fed the hungry, clothed the naked, nor set the prisoner free." The "fatherless and widow" were alike neglected, and MEDICINE, or "healing the sick," which the GREAT PHYSICIAN practically worked only in His daily life, and which He enforced upon His disciples, was gradually neglected, and finally handed over to the secular power, under which it has become the *poor*, *wretched*, powerless thing that it now is. A mere fleshy excrescence without soul; a spiritless, selfish mass, disgraceful alike to GOD and MAN. It assisted, at first, under the authority of the Church, to destroy the great covenent of the eternal, with the creature man; it hid the truth from his eyes, and in dark symbols, which the unlettered could not decipher, practiced upon human credulity until it had reduced society to utter helplessness. It then, in union with the State, made laws to punish the people for seeking to do for themselves that which it could no longer do for them. In this way the traditions which had descended from age to age and country to country, were all but lost or fused with the grossest superstitions, until the "medical" light of the past was absorbed or extinguished in universal darkness. Reason, at length no longer capable of distinguishing truth, quietly submitted to its fate; and men thus reduced cared but little for the health of their bodies. *Medicine*, and the *medicine* man, had both become a *mystery* entirely beyond the reach of the uninitiated.

The time, however, had arrived when an effort was to be made to remove the evil, and we have seen the way in which it began. The relationship of medicine with religion is a truth as old as creation, and its connection with the Church was cemented by the LIFE and DEATH of Christ; it has a foundation, therefore, which never can be destroyed, whatever changes may take place among men. Resting their faith upon this, the founders of America, or "Pilgrim Fathers," took with them whatever medical knowledge the Church at that time possessed, and as we have already seen, incorporated the mission of "healing" with the spiritual. All their medicinal agents were from the vegetable kingdom. Of "metals" and "minerals" they knew nothing, nor indeed was anything known of them even in this country at the time they left, although the delusions were daily gain-

ing ground. There was quite sufficient of the old leven remaining, however, and to the labours of these first settlers, we owe the progress which scientific medicine has since made in America and England. We have said, speaking of its condition in our own country, "It then, in union with the State, made laws to punish the people for seeking to do for themselves that which it could no longer do for them." No fact is better attested, or more positive than this, hence the twenty medical companies in the united kingdom, at present possessing the exclusive right of granting licenses to practice, —the numerous schools that monopolise medical teaching: and the "Acts" that have been passed from time to time prohibiting illegal practice, and punishing with fine and imprisonment whoever dared to act contrary to rule. Now although the country has been subjugated, or made to endure its thraldom with something like forbearance, it has never been satisfied: nor have the more illiterate and needy ever ceased to revolt. Their REASON has been subdued, but their INSTINCT, which is often "the better guide," has never been conquered; hence their unbounded faith in simple herbs, through which medical despotism and they are constantly at war. "The poor herbalist could be managed, no doubt whatever, but for the demagogues or fanatics which they have amongst them—these pests of physic who are constantly preaching education, philosophy, and medical freedom into their ears, and exciting hatred to the profession. It was through them that the highly scientific practice of bleeding in all forms of inflammation and other diseases, became a thing of the past, and what they did for this, they are doing, or seeking to do, in other branches of the science. In America, they have reduced all the different Schools to an equality, and separated them entirely from State control. We had succeeded in establishing the same medical institutions there that we enjoy here; but soon after their independence, public opinion broke them up, and what is far more foolish, prohibited the use of *Mercury* and *Antimony* in the ARMY and NAVY. It is to these and such as these, who have contrived to work themselves within the circle of legal medicine that the profession owes its present position. We must put them down by some means or other. That they are disreputable every one must admit; for what can be worse than to presume to teach the public

medicine. What, in fact, can the public know about it, or who is there that desires, or ought, or can know? But they mix up religion with their teaching, and quote Holy Writ for their purpose. They have the Scripture upon the ends of their tongues, and are continually using it; and in addition to this, they form societies or schools, and teach their pernicious doctrines wherever they can find fool to listen to them." Now this is just the logic that "legal medicine" employs, and the way it judges and reasons of the efforts society is making to unravel the tangled web it has woven for it. The spirit of the Church, which treated Columbus as a vain dreamer, enforced recantation from Galileo—established the Inquisition—burnt the Martyrs,—fined, imprisoned, impaled, quartered and expatriated so many brave men, still lives in its medical descendents. The power alone is wanting; the will remains.

That the views of the people generally who take upon themselves to think and study medicine may be crude, we readily admit; and that many of them may be enthusiasts and fanatics, we can as readily believe, and that they are ignorant, we may, with just as much truth, acknowledge. And for these very reasons they require education, and are seeking as best they can to obtain it. In the eyes of the foolish, ignorance is a crime with which the law should deal not a misfortune that wisdom should remedy. From the remarks already made, it will be readily seen what legal medicine has done for us. It has secured by legislative influence, full and uncontrolled command of every institution in the country, and every human being from *birth* to *death*. It holds the *army*, *navy*, hospitals, dispensaries, benefit societies, assurance societies, government and people in bondage. It has conquered everything, even itself; for it has made the individual enterprise of its members subservient to the interests of the corporations, schools, and colleges. It has done all this, but it has not destroyed, nor can it destroy, *truth*. The ETERNAL, IMMUTABLE, and EVERLASTING "truth" seen and felt in the fitness of things, in *philosophy*, *science*, *reason*, *instinct*, and throughout all creation.

"And God said, behold I have given you every herb which is upon the face of all the earth, and every tree in which is the fruit, a tree yielding seed to you, it shall be for meat." Here is our inheritance, and we stand upon it secure, for we know the foundation is safe. Darkness has overshadowed it, but it is emerging from beneath the

clouds, and thousands of bright longing eyes are being again directed towards it.

America has already won her religious, political, and medical freedom: and the work she has done, and the vast store of practical knowledge the has thrown into it are truly amazing. There was, we have said, in the Galenic School "all the essentials for working the science of medicine out, had the profession been sufficiently advanced: their pharmacopœia contained no chemical preparations, and consisted exclusively of organic substances." This well-established fact compels us to acknowledge, that whether right or wrong, *medicine*, if not raised to a science, nevertheless had a scientific foundation. It is useless to longer parley with the blind, or to blink the truth for the sake of interest and cupidity. "It is in vain," says Bacon, "to expect any progress in the sciences by superinducing or engrafting new matters upon old. An instauration must be made *from the very foundations*, if we do not wish to revolve for ever in a circle making only some slight and contemptible progress." The time has arrived then, when the battle must be fought openly and honestly. A fair stage and no favour we claim as our birthright, and have no fear of the result in the encounter. Of the many brave men who have worked and won the medical liberties of America, it is not necessary to say more than that they have done well, and the human family remain their debtors; nor is it necessary to point to our own country. Much has been done, but more remains to be done: at present medicine is in a very *vague* and unsatisfactory state. Confusion and discord are its inseparable concomitants: nor is it possible to change it until it is placed upon a sounder foundation. That it is a *Science*, the greatest and grandest that can possibly engage the attention of mankind, and that the aim of all who love it should be to raise to the highest possible point, few will presume to deny. Many, very many have seen its necessity, but few the way of working it out. "I desire a revolution in the theory and practice of medicine * * * I invoke it in my vows. I will aid it with all my power, with all my faculties; but I desire a revolution SLOW, wise, and sedate. I do not burn the ancient works with Paracelsus; I do not break any pharmaceutical vessels; I do not proscribe all former knowledge; on the the contrary, I would preserve all that does exist, and would even

acknowledge THAT I PREFER an EMPIRICAL practice to the present infancy of CHEMICAL medical science." *

It will be seen from this quotation that a half century has barely passed since Dr. Thornton expressed himself with so much freedom. He felt as hundreds of talented members of our profession have felt before and since, that the chemical system which has become so fashionable is rotten, that it has nothing sound or scientific about it; that it is full of "wounds and bruises and putrefying sores," and that there is no hope for it apart from its complete extirmination. "I prefer," he says, "an empirical practice to the present infancy of Chemical Science," that is to say, "so far as it has gone I see nothing but evil in it. It has suppressed that which was GOOD for that which is bad, and called the former *empiricism* and the latter *science.*" It was for this sterling truthfulness of character and the support which he gave to Mr. Charles Whitlow as already stated, that his name was struck from the roll of the Royal College of Physicians. And here is just the mistake which he *and other* medical reformers have made. They desired to reform medicine without exciting the opposition of their confreres, and wondered why there should be any. They knew not that it was impossible for corruption to reform itself, that in fact there never had, nor never could be "reform" from within, unless it first came from without, and that unless it was first created there, every effort which *good* men make is but to give opportunity to bigotry in power to do them wrong. A half century ago the public, upon the great question of health and medicine, was in a state of living death, and even now it can scarcely be said to have thrown off its grave-clothes, but the spirit of truth and light is abroad, and with the magic wand of progress it opens the eyes of the blind, or with the voice of inspiration cries "Lazarus, come forth," and immediately the dead arise. And how has the "spirit" been evoked? What spell has exorcised it from its night of restless slumber? How shall we answer these questions? Alas! we know not. In thankfulness for every blessing, and for every good, and every advance society makes, we bow the head in deep humility, and work and wait upon time. Thousands already know the truth, and every day adds to their number. The medical

* Philosophy of Medicine. By Robert John Thornton, M.D.: Sherwood, Neel, and Jones, London, 1813.

dissenter, but more particularly the "herbalist," has been made the terror of the timid and the reproach of the scornful, the "scape goat," for cowards to frighten the ignorant, and the agent of falsehood and wrong, in order that injustice might be legally worked out upon the poor and needy: but true to nature and instinct he holds fast his integrity, and with a conviction of the power of truth smiles at the puny efforts of those who in the pride and vanity of self, claim to have become the recipients of all knowledge. And what is a "herbalist?" Have they who used it to reproach and wrong the despised one, asked themselves why they did so? No, not they—it has been the fashion, and that with the foolish is sufficient. Well, "fashion rules the world," in things that are 'foolish' and things that are wise; and since folly has had so good a time of it, let us hope that wisdom may have the next. But what, we have asked, is a "herbalist?" We reply, a man whose faith is based upon science—a man that, amidst the revolutions and changes of time, prefers rather to endure the scoffs of the ignorant and scorn of the foolish, than yield one inch of his right to think and act as a free man—a man whom contempt cannot injure nor power crush—a man who worships in the great temple of nature, who bows his head in humility and thanks his Maker for the herbs and flowers—a man who has sworn upon the altar of his country and humanity "with all his soul and all his strength," so long as it shall please God to spare him to do his best to rid the world of the horrid practice which, under the name of "Science," undermines, breaks up, and destroys human life—a man who, standing upon the rock of God's eternal truth feels himself secure, and knows that medicine can have no other foundation; reason, no other guide; science, no other law. Folly may smile, prejudice scorn, cupidity curse, tyranny punish, and medical despotism cry "INFAMOUS," but truth continues, and the "herbalist" lives ON. Not a life of the PRESENT alone is his, but of the PAST and FUTURE. Not the mean thing that folly has made him, but a companion for PHILOSOPHERS and KINGS. Does he accept the great truth first announced by the CREATOR, and believe that when HE looked upon the earth—upon the newly-made creature MAN, and pronounced the beautiful creation "good," and said, "Behold, I have given you every herb bearing seed, which is upon the face of all the earth?" Does he accept this as a precious *gift* and a

precious *truth*? Does he love it, cling to it, cherish it, and refuse to give it up? Well, KING SOLOMON did the same, and Solomon was a "wise man." How then say you, the "herbalist" is a fool? Does he speak, and write, and teach the goodness of GOD as manifested in the herbs? SOLOMON did the same; for "he spake of trees from the cedar tree that is in Lebanon, even unto the hyssop that springeth out of the wall." Does he praise GOD for all HIS mercies? Well, what of that? KING DAVID did the same. "HE causeth the grass to grow for the cattle, and the HERB for the service of man." Does he love nature, and the sunshine, and the flowers? So did his great Master, CHRIST. "Consider the lilies, how they grow; they toil not neither do they spin, and yet I say unto you that Solomon, in all his glory, was not arrayed like one of these." Does he love to recall the thousands of years that are past? Well, where is his crime, where his shame? He gathers, it may be, the *mistletoe*, as the DRUIDS did thousands of years ago, and the *verbena*, and although he may not cut the one with a GOLDEN KNIFE, nor pluck the other at the rising of the DOG STAR, he may love them as well, and admire the wisdom that gave them the power of continuance. "Yes!" he says in the simplicity of his heart, "Yes! GOD's promises are sure." "Behold I have given you." "Given you" PRECIOUS GIFT; and the tear of love glistens in his eyes. Ignorant he may be of that which conventional wisdom calls knowledge; but his admiration of the beautiful and love of truth, is seated very deeply in his heart, and after his own fashion he works science out. He may or may not do it fashionably or gentlemanly. He may know nothing of the wortcunning of the Saxon, nothing of Greek or Roman botany, of *Avicenna*, or Dioscorides,—have never seen or heard of the "Grete Herbal;" read old Dr. TURNER's Herbal, or Dr. BULLEYN, TOURNEFORT, DODOEN, LOBEL, MATTHIOLUS, RAY, GREW, GERARDE, PARKINSON, SALMON, LINNÆUS, HILL, THORNTON, JUSSEAU, STEVENSON, or CHURCHILL, nor any other author. He may, indeed, have been so shamefully neglected as not to be able to read any book, neither upon "herbs" or any other subject. If he reads the GREAT BOOK of NATURE, however, as many a poor "Herbalist" does, and who, to the disgrace of the foolishly great, has been taught to read no other. "If," we say, "he reads the great book of Nature," even though he cannot read the "little books of men." There is in this fact

a redeeming power of more real value than your cunning men of physic have any conception of; for even he, the poor neglected one, cannot love the "herbs" without becoming a WISER, healthier, and a BETTER man. Who is he that spurns or treats the "herbalist" with contempt? Not the prudent, not the wise; not he who loves nature and his fellow-man; not he who desires to raise medicine up to a practical science; not he who loves the poor and labours to lift them up; not he that would free the ignorant from their bondage and medicine from its degradation. No! it is not him, but the medical "*Pharisee*," *Levite* and *Despot*. These are they. The one "thanks GOD that he is not as other men," the other "passes his poor injured neighbour by on the other side, and the third punishes him for his misfortune." Away, then, with your puerile cry of "herbalist," and learn that there are "good Samaritans" who yet live to pour on the oil, and bind up the wounds of the injured—that GOD'S truth is not to be stamped out with the iron hoofs of the selfish and ignorant, but that it is as powerful to redeem mankind from error as ever.

"Is there any thing whereof it may be said, see, this is new? It hath been already of old time which was before us."*

* From the brief outline which we have here given, it will be seen that we have endeavoured to expose the errors which have from the time of Henry VIII, usurped the medical and lay-mind of society. It will also be seen that we take our stand upon what we believe to be "TRUTH"—that we pay no regard to systems or interests. We have one object alone, and that is, to raise our profession up to a "practical science," and this can be done by no agency but "education." The public must be made to see that medicine cannot be exempted from the *conditions* which determine the improvement of all other sciences, and that so long as the monopoly continues, so long must it remain in its present miserable condition. Exclude the genius of a country from any art or science, and you make progress and improvement impossible.

Chapter V.

CONDITIONS OF HEALTHY LIFE.—HEREDITARY DESCENT, &c.

"Thou shalt have no other GODS before me. Thou shalt not make to thyself any graven image, nor the likeness of anything that is in heaven above, or that is in the earth beneath, or that is in the water under the earth; thou shalt not bow down to them nor worship them, for I the LORD thy GOD am a jealous GOD, visiting the sins of the fathers upon the children unto the third and fourth generation of them that hate me, and shewing mercy unto thousands of them that love me and keep my commandments."—*Exodus, chap.* xx, 3, 4, 5.

"A sound mind in a sound body" has long been a common-place aphorism, but like many others it has been very little heeded; and yet if we ever hope to realise the blessing for ourselves and our posterity, it is not too much to say we are bound to work it practically out.

In the ordinary affairs of life we are expected to bring whatever conditions are necessary for effecting the purpose we desire to accomplish, and naturally put the man down as a "fool" who presumes upon any other. Industry, prudence, frugality, economy, perseverance, &c., are the great cardinal virtues which we acknowledge as absolutely necessary to competency and happiness. We see and feel this, and experience has stamped it as a positive law through which we can alone hope to enter the haven of social and domestic security.

Of human life, considered apart from its conditions, we know nothing, nor shall we venture to theorise respecting it. When it began, or how it began, we may never expect to know, nor is it necessary; had it been, we may be sure it would have been revealed to us under natural circumstances, rather than from the authority of Holy Writ.* Nothing that the mind can conceive or the tongue express can convey a more beautiful description of man's creation than the brief history recorded here.

* "So GOD created man in his own image, in the image of GOD created he them, *male* and *female*, and GOD blessed them, and said, be fruitful and multiply and replenish the earth, and subdue it; and have dominion over the fish of the sea, and over the fowl of the air, and over every living thing that moveth upon the earth."—*Genesis, chap. i,* 37, 38.

By the "image of GOD," we understand, the perfection of the human form physically and mentally,—man and woman reflecting in their persons the original from whence they received their being. The earth, which is their inheritance fitted for them, with its immense innate resources and the myriads of organisms, with all their natural and latent capacities ready to adapt themselves to the necessities of them and their posterity agreeably to the application of the skill and power with which they alone are gifted. How highly philosophical and clear the purposes of life are here represented. To "replenish the earth" is one of the great primary commands which unites us ever to our CREATOR, to the *human family*, and to the *earth*, of which we are a part. And shall we be so blind to our best interests as to overlook the obligations and duties imposed upon us, and from the proper fulfilment of which the health and happiness of our posterity can alone arise? The very instincts of nature cry aloud against the ignorance which consigns so many thousands unnecessarily to disease and death. Why are we attracted by the virtuous and beautiful, and repulsed by the vicious and deformed? The answer is in order that the 'virtuous and beautiful' shall be continued. Or why is the love of children one of our all-absorbing desires? The answer is in order that the 'children' committed to our care shall receive the attention necessary to fit them for taking their position, and working out the great problem of the future. "Replenish the earth," not with deformity and vice, but with a GOD-like healthy race. Through this only can man and woman fulfil their destiny. It is a duty which the physician owes to his profession, to leave nothing unsaid or undone that can be made available for promoting healthy life. As a guardian of the public health set aside by society for the purpose, he is bound to take the first position in all questions relating to this important subject. It is to the proper understanding on his part of hygiene—the sanitary adjuncts of his professional skill, and the prudent enforcement of the same in practice, that his success in curing must mainly depend. That this most important branch of medical science has been too long untaught and unheeded we are compelled to admit, and as a consequence the greater part of the failures that follow the best medical efforts are laid to the physician's charge.

In speaking of the conditions of life as relating to hereditary descent, Dr. A. Combe says:

"So manifest is the influence of hereditary constitution upon the organization and qualities of the offspring, that from the earliest ages the attention of mankind has been directed to its observation, and where interest does not blind the judgment, there is thus an almost instinctive preference of a sound and morally respectable stock over one which is either unhealthy or remarkable for any moral or personal peculiarity."

He then gives the following as the conditions of moral and physical infirmity:—

1st. Natural infirmity of constitution derived from parents.

2nd. Premature marriages, especially of delicate females predisposed to hereditary disease.

3rd. Great disproportion of age between parents.

4th. Marriages between parties too nearly allied in blood, particularly where either of them is descended from an unhealthy race.

5th. The state of parents at the time of conception; and lastly, the state of health and conduct of the mother during pregnancy.

"Nothing," he then says, "is more certain than that other circumstances being favourable, robust and healthy parents have robust and healthy children."

To enlarge upon this part of our subject is perhaps unnecessary, we cannot pass over the facts, however, which have been rendered so positive during the last quarter of a century in our annual agricultural exhibitions; nor is "man himself an exception to the general law." All our improvements in our domestic animals have resulted from the application of positive science, and "it is a false and injurious delicacy which would try to divert a truth so influential on happiness, and which has long forced itself upon the notice of the most thoughtful." Of the physical degeneracy growing out of hereditary taint, we may convince ourselves by observing the number of scrofulous and syphilitic children born but to suffer and die; or, if they live, to fester and corrupt vitality in its very germ.

Disease, like health, is governed by natural and fixed laws; were it otherwise, nature would be at fault. "Parents," says Dr. Gregory, "frequently live over again in their offspring, not merely in countenance and bodily conformity, but in the general features of their minds." Common observation has established this fact, nor will the physician require to be reminded of the numberless cases which bear upon the enquiry. As a branch of the great "science of life" we should not be other than acquainted with almost every phase of its manifestations, and well prepared to grapple with its eccentricities and deficiencies. We shall content ourselves, therefore, by saying, upon this

knowledge the superstructure of healthy life can alone be raised, and that not as regards its physical aspect alone, for the peculiarities of the mind are equally as important as those of the body; nor is it too much to say that idiocy and insanity are governed by fixed laws, and as amenable to science as the more palpable disarrangements that come under medical supervision.

Under the old Jewish dispensation the sanitary regulations which governed the social and domestic economy of the people stood conspicuously out: surrounding nations, sunk in the abjectness of idolatry, were content to wallow in the most revolting superstitions. Dark to the ever-watchful supervision of nature, they sought to avert the diseases under which they suffered by propitiating the interposition of their GODS. The Israelites, more observant, saw only the work of Omnipotent justice in the great natural laws which ever govern the destinies of mankind, and under the guardian care of the ONE great JEHOVAH, they felt themselves secure so long as they strictly obeyed them. Science can have no other foundation, reason no other guide.

It will not be necessary to wade through the theories of modern Physiologists, nor to rack the mind with subtle speculations. The fact stands out so prominently in all the great conditions of existence, and is so manifest to all practical physicians, that there is no possibility of avoiding it. We might, if we pleased, heap proof upon proof until we had exhausted the reader's patience and our stock of experience, but it could lead to no practical good. Take, however, just a fact. A young man, perfectly healthy, is attacked with pleurisy or pneumonia, and is treated without regard to the knowledge of first principles, that is to say, with calomel, tartar emetic, narcotics, &c. If he does not succumb under the attack or treatment, or under both combined, the chances are that his recovery will be very slow, and that chronic *Empyema* will supervene, which, in after years may terminate in *Phthisis pulmonalis*, *Lumbar*, or *Psoas* abscess, or failing in these become the *germ* of the same, or similar diseases in his offspring. "Many substances essentially poisonous in their nature are continually formed within the organism during health, and the maintenance of health requires and depends upon the constant disposal of these poisons * * * * This is the work of excretion carried on continually under the influence of that force which keeps up the nutrition of the body * * * When, however, this balance is disturbed, some matter essential to the constitution of some other matter becomes deficient, or some other matter collects in undue quantity, and, in either case, other organs and functions than those primarily involved are drawn into the service of the organism to restore, if possible, the balance thus disturbed; and when we bear in mind the important fact, that the normal constitution of *any one part* is dependent on the normal constitution of *all the rest*, we shall see at once how easily imperfectly-formed elements of nutrition may be generated in the organism, with all the features which we are accustomed to recognise in diseases. * * *

As physiologists and physicians we must 'recognise' in all these changes the manifestation of the same force; and in the *recognition of this wise and simple plan of our creation, the mind ascends in reverent wonder to the highest regions of contemplation.*" †

Accepting the above remarks as essentially true (and next to the brief exposition of disease by Hippocrates,‡ we know of nothing clearer or more satisfactory); it follows that the secret of cure lies in eliminating the poison through the natural channels of the body by such agents as science and experience warrants us in using. Any treatment that fails to restore the blood to its normal condition, leaves the *germ* behind it; and the system thus vitiated is at all times predisposed to one or other of the numerous forms of disease under which so many prematurely perish.

† Germs and Vestiges of Disease, by HORACE DOBELL, M.D.: Churchill, New Burlington Street, London. 1861.

‡ *Omnium morborum unus et idem modus est.* "The type of all disease is one."

Chapter VI.

INFANCY: ITS DANGERS, DRUGGING, &c.

"What is it that is worse than a sweating sickness or plague? * * * * it is a *low state of vitality*, of physical power, of mental energy, of enjoyment, and even of moral strength. A timid parent may ward off every danger from her children only to reserve them for this. While she is afraid of burning, drenching rain, wet grass and sloppy roads, of pistols, sharp knives, flying stones and deep streams; of rude companions, bad words and horrid examples, of infection, contagion, fruit stalls and maturer seductions,—of everything, in fact, that in one form or other is sure to assail every body when he steps out of doors and mixes in society, old or young, she is all the time raising a poor weak, if not absolutely sickly hot-house plant. He is acquiring no solidity of fibre, nor nerve, mind and body. If he is not positively bad, he is not good for much. Bred without sun and wind, or those social influences which are the sun and wind of the soul, he stagnates, shrinks, droops and languishes, retires into himself, or, from sheer want of resistance [resisting force, power, vital force, physical stamina, or by whatever name we choose to call healthy life,—*Ed.*] falls an early prey in the first encounter with the actual world."

From the remarks made in the last chapter and the above quotation, which is copied from the *Daily Times* of August 4th, 1858, it will be readily understood what our views are concerning the nature of Infant life. A plague is doubtless very alarming and destructive. It may come, do its work and leave the residue in vigorous health; but a low state of vitality constantly with us, entails disease, misery, and premature death as generations come and go. Of the excessive mortality that obtains universally, it is all but unnecessary to speak, the facts being made so palpable through the returns of the Registrar General. We quote the following figures, however, from a paper read by Dr. Husband, of York, at the Social Science Conference, September, 1864. "Of the children born in 1862, 56,960 males, and 44,413 females, died under the age of twelve months. In the same year 178,000 children died under five years of age, both classes from contagious diseases, constitutional defects, and violence, the latter being one thousand only out of the whole. 19,696 died of

fever before the age of one year, and 17,000 from preventible diseases, 1000 died from the want of the breast, and 16,000 died of pneumonia." Accepting these figures, and the diseases named as a sample and fair average of infant mortality, we arrive at the conclusion that near one-third of the children born die before the end of the first year, and one-half before the end of the fifth. Among the working classes in London, Liverpool, Manchester, Birmingham, Leeds, and the manufacturing districts generally, it is over this number; among the more fortunate classes, less. Of the causes we need say but little seeing that they are so generally known. Dr. Husband, from whom we have already quoted, says, "the remedy can be found only in the improvement of the habits of the people, and in the appointment of officers of health in our thickly populated districts." There can be no doubt that measures of this kind would lead to great good, in fact diffusion of knowledge regarding the laws of health, and the encouragement and cultivation of a higher order of mind among the numerous class of men who keep shops for the sale of safe and harmless medicines, which the more intelligent amongst the people, in spite of prejudice and opprobrium, prefer to patronise, a more scientific and safer practice than that which at present obtains in legal medicine, and the gradual disuse of the poisonous agents so universally dispensed by fashionable druggists, would do more to mitigate the diseases of childhood and reduce the tables of mortality than any measures of a legislative character, however stringent we may make them.

Of the immense sacrifice of life through the sale of poisons few or none except those who have given their attention to the subject can possibly comprehend. We quote the following from the *Times*, on the report of Dr. A. Taylor to the Privy Council, (August 24th, 1864). "To what extent the administration of poison causes death or disease in England, is not even approximately known." Such is the disagreeable intimation with which the medical officer of the Privy Council introduces a section of the present report. If we could be guided by the returns of the Registrar General, we should conclude that from 400 to 500 persons a year fall victims to either the accidental or wilful administration of poison. But it is unfortunately certain that this number is far below the reality. At the utmost it is but a list of the fatal poisonings which are discovered, whilst we know that few sources of death are so apt to escape discovery. Of

course the murderous poisoner plans to avoid detection, and too often as familiar cases have proved with considerable success.

In pursuance of such uncomfortable reflections as these, Dr. Alfred Taylor was commissioned by the Privy Council to report upon the present degree of our insecurity. His report is certainly not calculated to relieve the public mind, either as to the facility with which poisons may be wilfully obtained for criminal purposes, or as to the danger which arises from the carelessness or ignorance of druggists. Respecting the first point Dr. Taylor sums up the case by stating, that—"*So long as a person of any age has the command of three-pence, he can procure a sufficient quantity of the most deadly poisons to destroy the lives of two adults.* No one wishing to destroy another by poison, and having the knowledge to make a selection among drugs, need have any difficulty of carrying out his design. If refused at one shop he can procure the poison at another; if refused by a druggist, he can procure it at a grocer's! If refused at a grocer's he can procure it at a village general shop, where poisons are retailed by girls and boys and no questions asked." In the case indeed of one poison, arsenic, the legislature has attempted to impose some restrictions upon its sale. By an Act passed in the 14th and 15th Victoria, arsenic ought not to be sold in quantities less than 10lb., unless coloured with soot or indigo, so as to prevent its being mixed without suspicion in articles of food; nor ought it ever to be sold except with full registration of the buyer's name and residence, and of the time, quantity, and professed purpose of his purchase; nor even thus to any person unknown to the seller, unless in presence of a witness known to both seller and purchaser. It is certain, however, that these restrictions are inoperative, numerous deaths having occurred from the administration of white arsenic during the present year. It is sold, moreover, on the most frivolous pretences to almost any applicant, and even when it is coloured the precaution affords little protection, except when the poison is mixed with liquids. The better class of druggists do not sell it by retail. The grocer, chandler, oilman, and village shopkeeper are the principal vendors, and its great cheapness, the price of an ounce being only a penny or two-pence, places it within the reach of the poorest person. The sale of other poisons is free from even these ineffective restrictions. The lower class of drug dealers have

few scruples in selling them, *and whether they are wanted for murder or suicide, they are readily obtainable by the poorest or most casual applicant.*

The danger to the general public however, from the mere facility of obtaining poisons, depends upon the probability of being exposed to such a crime, and except so far as such facility increases temptation, the danger is but that of murder. But the danger threatened by a careless dispenser of drugs is both extensive and serious, and Dr. Taylor's report is almost more alarming on this point than any other. A large number of persons wholly unacquainted with the properties of powerful drugs, are allowed to retail them to the public, on demand, without check or control, and that great mistakes must arise in consequence is obvious. But this danger is increased a hundred fold by the practice of keeping innocent medicines and poisonous compounds resembling each other in close proximity. Laudanum, tincture of rhubarb, senna, and black draughts, like each other in colour, may be seen standing side by side, in bottles of like size and shape, and with labels easily mistaken by the ignorant or careless, strychnine may be side by side with jalapine, morphia and quinine.* * * The danger reaches its height in village shops, where draperies, and drugs and groceries, and poisons are all kept and sold in confusion. From shops of this description Dr. Taylor has known instances in which arrowroot, rice, oatmeal, or something else in common demand, has been sold with a fatal admixture of arsenic. In one case the arsenic had been given instead of arrowroot, and had killed the consumer. A witness who went to the shop after the accident, found "rice, corrosive sublimate, jalap, and oxalic acid in different papers in the same drawer," and "all under the care of an ignorant boy." Even in the sale of poisons upon a large scale, similar mistakes have been known to follow from the same carelessness.* * * * "There can be no doubt," it is said, "of the horrid statement made by almost every Surgeon in Marshland, that there was not a labourer's house in which there was not a bottle of opiate to be seen, and not a child who did not get it in some form." It is not only, as we have shown, that the same reason exists for drugging the children as in the manufacturing towns. *The diseases common in the Marsh districts which have been freely treated by the use of opium, have familiarised the people with the use of the drug.* Immense quantities are sent into these districts, and the retail

druggists often dispense as much as 200lb. a year. In one district the average annual consumption is calculated to be at least 100 grains per head. It is sold in pills or penny sticks, and a well-accustomed shop will serve with it as many as 300 or 400 customers on a Saturday night. A man in South Lincolnshire has complained that his wife had spent £100 in opium since her marriage. To infants it is administered under the form of "Godfrey's Cordial," a mixture of opium, treacle, and an infusion of sassafras. This mixture varies with different shops, each selling its own "Godfrey," and when the mother, in going to field work deposits her infant with the nurse, (she always leaves her own bottle,) it has not unfrequently happened that the nurse has substituted her own "Godfrey" for the mother's, and frightened at its effects, summoned the surgeon, who finds half a dozen babies, some snoring, some squinting, pallid and eye sunken, lying about the room all poisoned. TO PUT OUT OF QUESTION THE ACTUAL NUMBER OF DEATHS DUE TO THIS RECKLESS USE OF A POISONOUS DRUG, WHO SHALL ESTIMATE THE EXTENT OF INJURY WHICH IS INFLICTED ON THE HEALTH AND VIGOUR OF A POPULATION THUS NOURISHED."

These facts are truly alarming, and with the view of mitigating the evil and satisfying the public, the Government has lately passed an Act,* making it penal for persons to keep open shops for the sale of poisons, unless they are educated to understand the business and registered accordingly. This is doubtless a step in the right direction, and cannot fail to lead in some measure to beneficial

*"Pharmacy Act of 1868." One of the most injurious of all the poisons universally employed and dispensed by druggists is the grey compound powder, composed of calomel and chalk, the *Hydrargyrum cum creta*. The trade in this is so extensive that the framers of the "Act" could not see the policy of placing it in the "Schedule." All the other poisons put together are not a twentieth part so mischievous. It does not destroy immediately as *arsenic*, *prussic acid*, *oxalic acid*, *tartar emetic*, and many others, but gradually undermines the life, and where death does not follow from its constant use, it produces irreparable mischief. In order to disguise it from the timid fears of half-informed mothers who cannot believe in anything out of fashion, many druggists mix a small proportion of red oxide of mercury with it, which gives the powder a pink appearance, thus calming their fears. That this terrible engine of disease and death should be excluded from the penalty attached to the sale of other poisons is a matter of no small moment, and one which deeply concerns the profession and public, a mystery in fact, which they will, *must* unravel in the future.

results. It will give to the dealer in "poisons" a legal standing, and enable the public to see where many, if not the principal causes of infant disease and mortality really lie; not that the "Act" can do much towards removing the mischief, for Acts of Parliament are of little good where ignorance usurps the throne of reason and fashion annihilates the mind. Speaking of legal poisoning, the Editor of the *Times* said, "the diseases common in the Marsh districts, which have been freely treated by the use of opium, have familiarized the people with the use of the drug." It is to this fact that we may fairly attribute the increase of poisons generally. Once "familiarise" or make an evil fashionable and the difficulty of removing it becomes all but insurmountable. To this we owe the immense consumption of tobacco and the diseases which grow out of it. The same may be also said of alcohol, and the numerous poisons dispensed by chemists, and prescribed by medical men. "Fashion," said the late Earl Stanhope, speaking of chemical preparations and calomel, "which is synonymous with folly, has promoted its use even in the tender age of infancy, and we cannot be surprised that nervous disorders are common, that bodily vigour and mental energy are impaired, and that cases of insanity have become more numerous * * * under such circumstances, an infirmary may become intolerable."* And if to this we add, "one of the principal causes of hysterical disease," we shall not be saying more than we feel justified in doing. Enough, however, has been said for our purpose. That the "dangers and diseases of infancy" require attention none will presume to dispute, whatever position or profession they may hold in life, and it is the duty of every one, but more particularly the physician, to point out and assist society by every possible means.

It would scarcely be necessary to extend our remarks if the subject was one of less interest. We cannot conclude, however, without directing attention to an article which appeared upon this subject in the *Leeds Mercury* of October 28th, 1864:—"Mr. Ikin," the writer says, "whose long connection with the Hospital for Women and Children in this town, entitles him to speak with high authority on the subject, enumerates the causes under five heads:—Early marriages in manufacturing towns, the administration of sedatives,

* Discourse on Medical Botany, by Earl Stanhope, 1854.

(opiates), doctoring by chemists and quacks, bad nursing and burial clubs." The writer then recapitulates the evils, and gives us figures similar to those already quoted, but regrets that he cannot share in the opinion that the excessive mortality is entirely due to preventible causes. "We search," he says, "their resolutions (Social Science Congress) in vain to find any suggestion as to how the various causes of death and disease are to be removed." In spite, however, of the terrible results arising from causes already named, "there is found existing under the same social influences, a class of mothers and fathers who are not affected by them, or if so in a very trifling degree." [We presume, of course, to speak now upon the authority of the writer, for he says, in the same article,—] "IT SEEMS THAT A LARGE PART OF THE CHILDREN OF THE POORER CLASSES EITHER ARE NOT SUBJECT TO SUCH TREATMENT, OR MANAGE BY SOME OVER-RULING PROVIDENCE TO WITHSTAND ITS BANEFUL INFLUENCES AND TO COME OUT ALIVE."

Now here it is that the truth lies, and whilst we search in vain among the speeches, resolutions and acts of the *wise*, we find the problem solved to a great extent among a fragment of the *simple*. With what class then is this redeeming power found? And who are they that "an over-ruling Providence" singles out for such favour? We reply unequivocally and conscientiously, the more despised Herbalist whose faith in nature is too strong, whose knowledge is too great, and whose mind is too pure to be corrupted by the follies which sacrifice his blind, ignorant benighted neighbours. The prejudiced and selfish smile at his simplicity; he trusts in the herbs, however, and cannot be tempted to sin against nature and God. The metallic and mineral poisons to his well-balanced mind are ministers of death. He has heard the truth, received it, works it out, and is saved.*

* There is nothing more certain than, that wherever the poor reject the poisonous drugs so universally dispensed, attend as they do so far as their circumstances admit, to the laws of health, and use only organic medicines, that the loss of their children by disease is the *exception* not the *rule*. We speak from the experience of a quarter of a century of practice in our profession, and *know it is the truth*.

Chapter VII.

CONGENITAL DISEASES, DEFORMITIES, &c.

"No keenness or culture of intellect that does not embrace the 'culture' of health, no wealth, no morality, and not even religion, that does not embrace the preservation of the physical system from all deterioration, and its cultivation to the highest perfection, will ever last long. No nation or people will ever preserve the weight of influence to which they are naturally entitled among others, without manliness of development, as the only reliable foundation of 'manliness' and 'reliability' of character. All that tends to produce this is so far a vital good."

If there is one truth more firmly established by the discoveries of physiology than another, it is that the production of physical and mental health in the offspring can result only from the union of 'physical and mental health' in the parents. This fact is now universally acknowledged by the scientific, and accepted by all intelligent and properly educated men and women, and nothing is more certain, than that whilst many causes of disease can be traced to the deficiency of physical stamina or a low state of health in the parents, that others again are engendered or grow out of the want of attention to the natural laws, and the general ignorance of society regarding the sanitary and educational conditions upon which healthy life depends.

Under circumstances such as these, the safety of the individual man and woman, with that of their offspring, will be determined by their own knowledge, and the manner in which they apply it.

Accepting, therefore, the fact that with all the care the wisest and most fortunate among us can possibly exert, we are still liable to disease, it becomes a question for every one, what are the principles and means best adapted to its prevention, removal, or cure? It has always appeared to me that the treatment of disease should begin with the *germ*, and that having satisfied ourselves upon this important point, we can, with something approaching to certainty, understand the causes connected with the immediate *diagnosis* of the case. Without

this knowledge we shall constantly miss our way; and where medicine is really needed, recommend hygiene, or where "hygiene" only is needed, persist in unnecessary medication.

Of the numerous diseases, or forms of disease, to which children are peculiarly liable, every experienced physician is painfully aware, and the difficulties and dangers that beset life at its very beginning are well known to us all. Presuming, however, that a child is begotten of healthy parents, (if nothing interfered with the natural process of parturition or labour,) and it receives ordinary care, there is no reason to fear for its future safety. Cleanliness, warmth, a proper supply of pure air, a good breast of milk, and a mother's attention and love, are, in general, all that is needed. Any deficiency of these, however, no matter how healthy the child may be born, will most assuredly produce disorder. If the mother goes on well after parturition, the chances are greatly in favour of the child doing well; if on the contrary anything disturbs or disarranges her health, the child will be almost sure to suffer, so closely related is the one to the other. Its little body has been built up entirely from the mother, and the nutrition which it draws from the breast is the same as that which nourished it prior to its birth. Anything, therefore, that disarranges the mother's health, interrupts or injures the circulation, more or less affects the process of lactation, upon which the child depends, and to this cause, more than to any other, we date the first or primary disturbances of infancy. Of the importance of good nursing, and all the conditions demanded by the child, it will be unnecessary to speak. Experienced physicians are acquainted with this part of their profession, and the consequences that flow from neglect: we leave, therefore, with a few brief exceptions, all that relates to these subjects, and come at once to the consideration of actual disease.

By DISEASE, we mean disarrangement or disturbance of the harmony constituting the condition of life, which we understand and express by the word "HEALTH." *Health* and *disease*, however, are relative terms which, with all our efforts to define through ordinary medical nomenclature, fall far short of our desires. We feel, in fact, a great difficulty in distinguishing the numerous maladies, with all the varied forms "disturbance" may at any time set up, and how inadequate our best efforts are to express the shades of trifling difference that often separate one disease from another. Accepting the

body as a whole, however, and all the abnormal changes to which it is constantly liable, we may rest content with the reflection that even though we cannot satisfy ourselves as to the exact character of any particular malady, we nevertheless need have no doubts regarding the principle of cure. That the numerous forms and types of disease of which we propose to treat throughout the present work are all distinctly marked will be readily seen, but this fact should not blind us to the realities of the many peculiar and exceptional symptoms often met with; nor should these "peculiarities" interfere with our treatment. In our endeavours to cure we are bound to keep in view the restoration of the body to its normal condition, and in our efforts to accomplish this we must do nothing to depress or thwart the efforts of nature. This, in fact, is one of the great secrets of medical practice, and the physician who understands it and works it out will rarely fail of success.

The physical irregularities connected with birth (congenital disease) deformities, &c., are well known to us all, and in many cases require immediate attention; for if neglected, they may either prove fatal or become troublesome and distressing. Lord Byron was an example of this, hence the well-known deformity in one of his feet, which, it has been said, did much to embitter his life. In every case of parturition, therefore, the medical attendant should carefully examine the infant in order to prevent future difficulties. How it is that disarrangements and physical deformities take place in *utero*, is often difficult to determine, but that they do we very well know. A sudden fright from the sight of a cripple has been known to produce immediate arrest of development in one or more of the extremities, and even in the cartilages and nasal bones of the nose or features resembling in the extreme of ugliness the object of it. In the same or similar way impressions are made upon the mind, and the child may be born *epileptic* or idiotic. Cases such as these, however, are beyond the domain of medical skill, and we name them incidentally rather than for any really practical purpose. Apart, therefore, from these, premature and still-born cases occasionally transpire.

ASPHYXIA *(Still Birth).*

This may arise from feebleness of constitution, lingering and tedious

labour, the improper use of *ergot*, or even from a too rapid expulsion of the fœtal mass. A remarkable instance of the kind is recorded by Evanson and Maunsell in their excellent work on the "Diseases of Children," in a case where the child came into the world by the process of *spontaneous evolution*, and underwent so much compression, that it produced complete *asphyxia;* and as it retained no signs of vitality it was placed in a corner of the apartment without being separated from the placenta (which was expelled along with it), and allowed to remain exposed to the cold air for nearly an hour, when, upon an accidental examination, the heart was found to beat feebly. It lived twenty-four hours. This was doubtless an accident which points to the necessity of attention, and to the consequences that may arise from the want of it. In all cases where the child shows no signs of life, and where at the same time there is no desquamation of the cuticle or apparent putridity, all extraneous matter should be removed from the nostrils and mouth, it should then be wrapped in warm flannel, and placed with its face downward, rather inclining to one side. Gentle pressure should now be made between the shoulders, whilst a slight rotatory process is carried out for a few minutes. If this fails to excite respiration, the medical attendant may place a piece of muslin over the mouth of the child, and endeavour to induce it by gently transfusing or breathing the respired air from his own lungs into the lungs of the infant. These appliances, and sudden immersion into a warm bath, is all that can be done, and if they fail, there will be little use in further experimenting.

DIGITAL REDUNDANCY *(Extra Fingers, Thumbs, or Toes).*

It sometimes happens that a child is born with more fingers or toes than are natural, and which may, if not removed, become in after-life a great eyesore or useless encumbrance. We remember attending the wife of a working man in Wardour-street, Soho, London, who gave birth to a child (a male) having two fingers and two toes extra. In all other respects the child was apparently well formed. We ligatured the four and separated them at once, without letting any one but the nurse into the secret. The child did well, and neither the mother nor father knew anything of it for several weeks after. In cases such as these the unnecessary appendages are united only by soft cartilage, and may be removed with perfect safety.

NÆVI MATERNI. *(Mother's-mark.)*

These marks or malformations are by no means rare, and originate from causes which are often very obscure. The most common *nævi* are the 'brown' and 'claret' colours, and the general or vulgar idea is that they result from imagination, or something that the mother "longed" for and could not obtain; and although it has been the custom to smile at this, for no other reason than because it was a common or vulgar belief, nevertheless, experience and a better knowledge of psychological influence in moulding the peculiar conformations of the fœtus in *utero*, have forced us to accept it.

We could, if we pleased, enumerate numberless cases that have come under our immediate notice, but shall content ourselves with one only. A young lady in Lincolnshire was deeply attached to a gentleman who was unfortunately deformed in one of his feet, which misfortune was so objectionable that her father could not be prevailed upon to give his consent to the marriage; the consequence was, that soon after the gentleman left the neighbourhood, and in the course of time married another. This did not fail to produce its effect upon the health of the former, and although every means were adopted by travelling and otherwise to improve and restore her, it was with difficulty accomplished. At length she got better, and returned to find a suitor free from the objection of her first love. She married, and in time gave birth to a son, in all respects a fine child; the foot, however, was deformed, and the resemblance so great, that as the boy grew, he became a mark for folly to point the finger of suspicion and credulity at. But we are not writing a work on Surgery, and shall not be expected to enter upon the practice, nor should we have noticed even these cases of *nævi*, did they not crop up so often, that it is all but impossible to prudently pass them over.

They are generally found upon some part of the head or face, and now and then upon the lips, and occasionally upon the breast or *labia pudendi*. When the mark is simply confined to the cuticle it seldom enlarges, and it is better not to meddle with it; but if it is raised above the surface, and supplied very abundantly, as many of them are, with ramifications from the surrounding arteries, its removal will be absolutely necessary. There is no difficulty

whatever in distinguishing cases that require an operation from these that do not, nor is there any great danger connected with it, if it is performed with skill and properly attended to in the process of inflammation and suppuration, through which it is bound to pass before its removal is completed. Surgery, like everything else, is governed by fashion, and even in cases of this kind it has its influence. Formerly the practice was to remove them by the knife, or by strong caustics, but within the last few years these have given place to needles and ligatures. The practice is to pass from four to six needles through at the base, and to wind a strong silk thread tightly around them underneath. This done, the ends of the needles are snipped off with a pair of forceps, a cold water covering is applied, and the nævus thus ligatured, under favourable circumstances inflames, dies, suppurates and heals. This is now the fashionable practice; still there are those who object to it as barbarous, tedious, lingering, and more difficult of cure. The following is the plan of treatment we invariably adopt with safety and success. Take a long straight needle, the common stocking needle answers well, run a string of white cotton through the eye, and pass it at the base of the nævus, tie it in a knot at the top and cut off the ends. Now pass it through again, tie another knot, and cut the ends off in the same manner, and so on for four, six, or as many times as it may be necessary; this done order a dressing of powdered *ulmus fulvæ* (slippery elm), to be applied between soft cotton cloths, saturated with cold water, and changed every four or six hours, or as often as they become dry. There is no safer method of treatment than this, and we recommend it beyond any other. The late Mr. Lawrence, under whom we acted as dresser in St. Bartholomew's Hospital, London, some few years since, invariably applied the *potassa fusa*, which is doubtless most effective as a caustic agent. Others again apply strong *nitric acid*, which is equally effective, but it requires great care. In naming the different modes of treatment we desire to remind the student, (if such he be), that whilst surgery, like medicine, has its general rules, it also has its exceptions, which are determined by the peculiarities and judgment of the operator. The earlier cases of this kind are attended to after the birth of the child, (if it is otherwise well nourished the better,) and as the accoucheur is expected to know all about *congenital* disfigurations, and as these and other abnormal cases are so many

proofs of the theory of *germinal* disease, we have ventured thus far upon the domain of the surgeon.*

* Mr. Skey, one of the most successful surgeons of the age, and at present the oldest (if my judgment is not at fault), in St. Bartholomew's Hospital, London, speaking of these *nævi* says, "when time is not an object, and more especially where it is desirable that the skin remain intact, I have adopted for many years the treatment by fine seton thread, introduced through the body of the tumour. For this purpose a long and fine straight, or nearly straight, needle is employed, by which the thread of silk is passed through the diseased (abnormal) growth, and allowed to remain in the tumour. Each portion of silk is tied loosely over the tumour to its opposite end; a second, third, fourth, or indeed any number of threads may be passed across transversely or obliquely to the first; but chiefly taking the axis of the tumour as the guide, these threads being tied upon the tumour, are destined to remain within it throughout the term of the treatment. Inflammation and lymph follow the line of their track till the whole substance becomes condensed and solid, and the disease is gradually absorbed, or the same result is obtained by suppuration. The only instance in which I have known this treatment to fail, was in the person of a child of one of the Warders of the model prison, in whom the disease was very large and equally soft. The child wore the threads unsuccessfully for three months. Usually a month, or occasionally even a few days, will suffice to obliterate the tumour. I have never seen any injurious effects resulting from the presence of the threads, but should such occur, it is hardly necessary to say that they should be removed. The part should be covered with some form of dressing or poultice to protect it against injury."

It will be seen from the remarks of Mr. Skey that he prefers "silk thread to white cotton." In this we think him at fault, from the fact of the absorbent nature of the latter, and as a consequence its expansiveness within the tumour.

It will be remembered that we speak of congenital nævi, or the 'marks' common at birth, which should be attended to as early as possible, and not allowed to become like that described by Mr. Skey in the case of the child at the model prison. A vascular nævus is an abnormal growth, which increases in size in proportion to the nourishment conveyed to it by the blood, and if allowed to go on becomes large, soft, or *erectile*. Speaking of these, Mr. Skey says: "extirpation unless wide of the disease, is necessarily attended with copious hæmorrhage, and its objection is obvious. Tying the arteries, supplying it (the nævus) is next to impossible, and were it possible would probably prove inadequate to the purpose. Pressure, injections of stimulating liquids, and breaking down the structure by means of a needle, prove equally inefficient, although either of these means is occasionally successful. *Tying the tumour by means of a ligature applied* along the base. This mode of treatment is painful, and is productive of a deep cicatrix. It is, however, an efficient remedy when the tumour can be so insulated as to justify the resort to it."

Principles and Practice of Operative Surgery, by Frederic C. Skey, F.R.S., 1858.

HERNIÆ *(Ruptures.)*

These cases are also common at birth, and prove to a demonstration that weakness or deficiency in any particular organ or part in the parents, entails its like upon their offspring; but while the former (nævi) may result from the mental impressions of the mother, hernia oftener arises from physical debility or deficiency in the same organ or part of the father, transmitted with the germ. A man, for instance, shall have been born of healthy parents, and soon after puberty is accidently ruptured: he marries and becomes a father, the chances are that his children, or whatever sons are begotten of him, will suffer from the same defect. Instances of this kind have, times out of number, come under our notice, and we point them out as a guide to young practitioners who, in facts like these, may find a clue by which to unravel the mysteries of life.

The most common *Hernia* to which fœtal life is liable is the *Umbilical*. To understand the immediate cause of this form of congenital hernia we have but to remember that in a well-developed healthy fœtus every part of the body is perfect prior to its birth. In cases of this kind, however, the parts have not completed their union, and the convolutions of intestine not being contracted and confined by the linea alba and peritoneum, a knuckle (large or small in proportion to the deficiency, protrudes) is pushed into the opening and fills up the vacancy. The *diagnosis* is a very simple affair, and the causes by no means difficult to trace.

From the description given it will be readily seen that the cure depends upon the vital power of the infant, and the means employed to induce contraction of the intestine and closure of the peritoneum and linea alba. If the child is free from pain, takes the breast, and can be prevented from crying, we may, if we are careful, hope for a favourable, if not a rapid closing up of the parts; if on the contrary there is crying, restlessness, and no disposition to take the breast, we may be sure that the case will prove troublesome. We pass this, however, to speak of congenital *Inguinal Hernia*. This may exist at one or both sides, and like the last, arise (as it generally does), from imperfect or incomplete formation of the peritoneum and tendons of the internal and external oblique

muscles; the consequence is that a knucle of intestine descends into the sac of the *tunica vaginalis* or covering, which nature has provided for the testicle after its descent into the scrotum. The cure in this, as in the last, consists in rest, quietness, nourishment, attention, skill, and care. The common method of treatment is not by any means calculated to produce the best results. It consists either in the application of an adhesive leather compress, or pressure immediately over the parts, with some hard intractable substances, which cannot fail, by producing irritation upon the skin, in thwarting the object sought to be obtained.

CONGENITAL UMBILICAL HERNIA,

Take particular notice of the protrusion, and cut or fit a piece of cork, about half an inch thick, and sufficiently large to cover the part, considerably beyond the space occupied by the intestine. Thin the edge upon the outside at its circumference, and in the centre cut out a circular space just deep and large enough to admit a properly developed or well formed navel. In addition to this, prepare a small piece of soft chamois or wash leather, to form a lining for the cork and circular space into which the navel is to be placed. This done, return the protruding bowel, place the cork and leather thus prepared directly over the part, and with narrow strips of adhesive plaster fasten the whole neatly and properly on, and place over it a bandage large enough to brace the whole abdomen. There is nothing further required but patience, time, and care. Look to this—see that the parts and appliances are in *situ*, and nature will complete the cure. Do not expect it rapidly, nor fail to examine the state of the bandage, nor to remove it daily for the purpose of cleanliness; be careful, however, not to remove the cork and adhesive plaster. Let it remain, in fact, until it drops off, or if it should be shifted, replace it, and apply fresh lining and fresh plaster; and when the parts are sufficiently closed to admit of their removal, apply the following at night, *Pulvis Symphytum* (comfrey powder), sufficient to form a small dough like cake, mix it in cold water, place it next the skin, and bind it on at night with the compress or abdominal bandage. This should be continued for some few weeks after the completion of the cure, in order to strengthen the parts and prevent any chance of a relapse. During the day nothing further will be needed than the application of such general

appliances as children require in ordinary health. In the second case *i.e.*,

CONGENITAL INGUINAL HERNIA.

The treatment is in no respect similar, because the position of the parts are different. We have simply to remember that the passage of the intestine is through an opening which, had the parts been fully formed, would not have been there, and that as the intestine has neither the internal nor external ring of the oblique muscles to pass through, it falls rather from its own gravity and the want of contraction and support. The treatment consists in replacing the parts and adopting the most simple means possible to keep them in their place. Circular round pads of soft wash leather and cotton, prepared and adjusted with the napkins, that they may act after the manner of a single or double truss, answer exceedingly well. We have but to remember that what nature failed to do in *utero* has to be done now, and that time and the appliances of which we have already spoken, will do it if it is to be done at all.*

IMPERFORATE ANUS.

Cases of this kind are sometimes met with in new-born infants, and when they occur, it is right and necessary for the medical attendant to attend to them. If the anus is closed by a thin skin, there will be no difficulty in removing it; and this may be done by simply manipulating or expanding the sides with the fingers, and dividing the membrane with a bistoury. There is nothing more needed than to keep the parts from re-uniting, and plugs or tents of soft cotton lint, softened with a little olive oil, will be quite sufficient for the purpose. It is not always, however, that they can be thus easily managed, for it happens sometimes that there is no passage at all, from the fact that the rectum may terminate within the pelvic cavity, or considerably beyond its natural position. In such cases, means must be adopted to form a communication; if not, it is impossible the child can live long. What the "means" should be, it is almost little better than waste of time to mention. Some recommend forming an

* In these and in all "congenital" deformities, the secret of cure lies in adapting our treatment to the condition and deficiency sought to be remedied. In the cases named, all that we have to do is to confine the protrusion within its proper bounds, and assist nature to close the openings.

artificial anus in the groin; others say "cut through until you reach the termination of the rectum, and form the communication from the perineum." In nothing of this kind is there the least chance of success, and even if there were, life to its possessor would be far from desirable.

IMPERFORATE VAGINA.

This is not at all uncommon in the newly-born female. It is caused by an inflammatory condition of the parts in *utero*, and in the majority of cases is easily removed, unless it happens that the passage of the urethra is implicated, which is very rarely the case, although it has been known to occur. In the former, the membrane must be divided, and the inflammatory condition (if still found) removed. The best remedy (after dividing the septum or membrane) will be found in the *ulmus fulvæ* (slippery elm powder), prepared as follows: mix a teaspoonful or two in a little cold water, and form it into a mass, place it between a cloth of soft cotton-lint, and use as a plug until the parts are restored, which will be generally in a day or two.

MALFORMATION OF THE PENIS

Is sometimes met with, and from the the want of attention on the part of the medical attendant, may become in after-life a source of much distress, not that it is possible to remedy the defects at all times; wherever it is possible, however, no excuse can be admitted for the neglect. Sometimes the *glans penis* is imperforate, the urethra terminating some distance from the extremity; or the urethra may have a false opening behind the *glans penis*, or the passage may be obstructed by a thin membranous stricture or septum. In either case it must be looked to. If the glans are imperforate, we must endeavour to open a passage and carry a small bougie through, which must be confined or kept in position by means of proper appliances until the difficulty is removed. If the obstruction is caused simply by a thin *septum*, or membrane in any part of the passage, it must be removed, and there is seldom any great difficulty connected with it. Where the urethra terminates, however, in an opening behind an imperforate *glans penis*, and there is no impediment or obstruction in the passage, it is not at all times wise or necessary to interfere, inasmuch as it is no barrier to procreation, nor injury in any way to the future man.

RETENTION OF URINE

Is not uncommon, and the medical attendant will sometimes find upon his visit after a confinement that no urine has been voided. In such cases it may be necessary to carefully explore the passage for the purpose of removing the obstruction, or a warm bath will generally do all that is necessary. There is nothing to make one uneasy in "retention of urine" for the first twenty-four hours of life, for nature prefers repose (particularly in infants that have passed through protracted labours), and does not care to be immediately called into action. This, like many other matters connected with parturition, requires only a little understanding on the part of nurses to prevent much unnecessary anxiety.

SPINA BIFIDA.

This form of congenital disease is also common to infancy, and there are few in the profession but have met with cases of the kind. It arises from malformation in the vertebral column, or deficiency of some of the spinous processes; hence the contents of the spinal canal protrude and present the appearance of a small round bladder full of fluid. In some instances the tumour is covered with a thin tunic, in others it is naked, and presents a red, fleshy, or fungus appearance. It is generally found in the lumber vertebræ, although it may present in any part of the back or even in the sacrum. It varies in size from a walnut to a small cricket ball, and is usually flat at birth, but soon after fills and protrudes. There is little hope of these cases, and they are very rarely cured. Instances are recorded where the sufferers have lived for years, but either in a paralytic or deformed state. In general the tumour bursts soon after birth, in which case death is immediate, or otherwise convulsions supervene, and death follows soon after. Sir Astly Cooper has published two cases of cures; there are few surgeons, however, inclined to accept them as permanent, nor do we introduce the disease with any view to successful treatment, but rather to satisfy those whose inexperience may lead them to extend hope where there is really none, and to convince parents of the inutility of expecting anything beyond palliative measures.

FRENUM LINGUÆ *(Tongue-tied).*

Nurses and mothers often distress themselves over this little

fancy, for "fancy" it is, in ninety-nine cases out of every hundred; nor should we have noticed it but for the desire that we have to relieve their minds. The fact is, such a malformation is very rare indeed, and it is not necessary to interfere unless the *frenum* extends to the very tip of the tongue, or interferes with suckling. In no case, excepting such as these, have we found it necessary to operate, and when we have, it has been more to satisfy the mother than for any other reason. If the child can take the breast, let the tongue alone, that is our advice, for as the child grows the *frenum* will lengthen. Should it be really needful to interfere, however, it is a very simple affair and easily managed; all we have to do is to avoid the ranine arteries. Operate as follows: raise the tongue from the floor of the mouth,* and with a small pair of round-pointed scissors, snip or divide the edge of the *frenum* downwards. We have said the operation is a "simple affair;" but this does not imply that the inexperienced should meddle with it, for like all simple cases, it may, by bad management, become very serious.

* Easily effected by making the infant cry.

The cases already treated embrace the majority of those that require immediate attention, and our object in introducing them is two-fold. Firstly, we desire to impress the mind of the accoucheur with the great responsibility of his profession; and secondly, enforce a larger share of physiological and psychological knowledge upon society. The ancients understood these subjects better than we do, hence their care in keeping constantly before the eyes of their women, the most perfect forms of beauty that imagination could conceive, art design, and skill produce.

It is quite unnecessary to say that beside the "congenital diseases" and "malformations" already introduced, there are very many others not connected with the duties of the medical attendant, such as the different forms of Talipes or Club-foot, Hare-lip, Ranula Stapyloraphy, or Cleft Palate, &c., but these belong exclusively to ordinary surgical practice, more than to the immediate demands of the accoucheur.

Chapter VIII.

DISEASES OF INFANCY.

"I appeal to every woman whose eye may rest on these pages. I ask of you, what has been done to enable you to understand the physical and mental constitution of that human nature, the care of which is imposed upon you? In what part of the course of your education was instruction of this kind introduced? Over how large a portion of your education did it extend? Who are your teachers? What have you profited by their lessons? What progress have you made in the acquisition of the requisite information? Were you at this moment to undertake the guidance of a new-born infant to health, knowledge, goodness, and happiness, how would you set about the task? How would you regulate the influence of external agents upon its delicate, tender, and highly irritable organs, in such a manner as to obtain from them healthful stimulation, and avoid destructive excitement?"

The above string of very pertinent and important questions are quoted from Dr. Southwood Smith's "Philosophy of Health," and there can be no doubt but that this necessary part of woman's education has been so universally neglected, that very few are capable of fulfilling the maternal duties that naturally devolve upon them. It is from this cause that so many thousands come into and go out of this "breathing world: scarce half made up"—born to premature life or equally premature death; if they pass through the primary period of existence, it is only to be taken off by one or other of the many diseases so common to infancy in the later periods. The first year of infant life is doubtless the most critical, and demands from those who take charge of it great judgment and constant care; nor is it possible for nurses, mothers, or medical professors, to discharge duties which they do not understand.

We have already pointed out the consequences that follow from "hereditary transmission," and the many "malformations" that grow out of mental impressions; from the contemplation of which we are necessarily led to consider the various gradations of health that accompany the beginning of life. Where there is perfect health,

proper attention, a mother's love and ordinary care, there is, we have said, "no danger to be apprehended," and the reason why so many children perish will be found in the facts that so few are born healthy, and that parents, nurses, and medical men are more or less deficient of the particular kind of skill which is essential to the preservation of the infant when thus vitally deficient. We pass these, however, with the thousand causes that underlie all our social institutions, and come at once to the consideration of the positive difficulties to which childhood is invariably liable; and in order that we may do this in something like order, we shall divide our subject into two distinct periods, beginning with the birth, and ending about the eighth or ninth year.

1st. PERIOD.—From Birth to the end of Twelve Calendar Months.

Within a very few hours after birth, as soon in fact as the child is washed and dressed (which every good nurse knows should be done with as little delay as possible), it should be allowed to take the breast. Children that are healthy, in almost every instance, manifest by the action of the mouth, or by cries peculiarly instinctive, this first demand of their separate existence, and the sooner it is supplied the better for both mother and child. In some cases, however, particularly after a lingering tedious labour, rest is requisite, and as many as twelve or even twenty-four hours may pass before the child may appear to give the least sign of any such want. Under such circumstances it will be necessary to use every means to induce the child to take the breast, and this it rarely fails to do, unless the circumstances are such as to preclude the natural supply on the part of the mother, or extreme debility on the part of the child. That these difficulties are by no means uncommon all experienced nurses well know; they also know that when they occur, it is necessary to resort to such means as the peculiarities of the case require. The first great necessity of the healthy infant is a good full breast. Let it have this and it will commence the work of building up its body with an earnestness so peculiar to the ears of its attendants, that there is no possibility of mistaking it. Born in health, it passes the greater part of its nights and days, for the first three or four months, in sleep. Keep it clean, dry, and warm; supply it with a healthy breast, light and air,

and there will be little else needed. It must not be supposed in speaking of "light" and "air" that the child is to be exposed to either, for the eyes of a new-born infant are as incapable of enduring "light" as its body is incapable of enduring cold; but whilst it is protected from their immediate contact, it should be freely surrounded with both. In any and every case where these conditions are not supplied, disarrangement is certain; and this is manifested in the altered manner of the child, and in the secretions and excretions upon which it depends for the continuation of healthy life.

Hitherto, then, the sleep of the child has been placid and sweet, its breathing free, its body warm, its skin moist, its tongue clean, its motions regular, and its urine free and inoffensive. There is a change manifest, but nothing to be alarmed at, consequently little notice is taken of it; gradually it advances, however, until the symptoms of health are displaced for those of positive disease. Quiet placid sleep has given place to restlessness, sudden starting or fright, crying, rejection of the breast, green ropy stools, scanty and offensive urine, dry skin, furred tongue, hot mouth and offensive breath. The child is ill; what is the matter? Does the mother know? Has she ever been taught anything about it? No, she did not know that it was necessary. Where now shall she seek relief, or what shall she do? Alas! alas! this necessary education has been entirely neglected, and the life so full of promise and future hope is lost, not because it was absolutely and irrevocably decreed by Divine Providence, but because the conditions upon which it depended were not understood. But "where now, we have asked, shall the mother seek relief?" Shall it be from the chemist's shop? Shall she rely in confidence upon the wisdom of the drug-man and administer some one of the numerous preparations of opium so commonly dispensed in cases of infantile disease? Shall it be *Godfrey's cordial*, *Dalby's carminative*, *mother's quietness*, baby's *sleeping stuff*, *hydrargyrum* cum *creta* (mercury and chalk), *vinum antimonii* (wine of antimony), *pulvis antimonialis* (antimonial powder), or any of the numerous mineral and other poisons that now degrade and disgrace medicine? We ask the question in all the sincerity of a hopeless sorrowful heart, "Where now shall the mother seek relief?" Is she poor and ignorant? if so, the chances are that the child's life will be sacrificed to one or other of the delusions named in Chapter VI.,

under the head of "Infancy, its dangers, &c." But it may be that she belongs to the more fortunate class of mothers, who, though neither poor nor rich, are nevertheless in a condition to call in legal medical aid and that she does it whenever necessary. Is this any reason why she should be ignorant of the principles upon which *life*, *health*, and *disease* depend? Has she full confidence in her medical attendant? Does it arise from a knowledge of what is right, or from the blind faith which submits without inquiry or doubt to fashionable drugging? If she has made herself acquainted with the principles that underlie the art of curing (and they are as simple as any other household duties), and the medical attendant, like herself, has studied his profession under other and more favourable conditions than those taught in the schools, she may, with every hope, calculate upon favourable results, whatever the case may be; but if she is content to remain in ignorance, to believe, in fact, that it is no business of hers; and if the medical attendant has not passed beyond the circle in which he was trained, then we say with all sincerity, and "more in sorrow than in anger," the chances are still against her. Not because of deficient skill, not because attention was wanting, not because the pathology of the case was not understood, not because the attendant was not deeply interested and anxious to save his little patient's life, but because that which is false in principle never can be other than injurious in practice. We seek in the numerous works of the ablest members of our profession for those remedial agents which a merciful Providence has placed within our reach, but fail to find them; folly has ignored them, shut them out, driven them into low shops and stores, as medicines for the thoughtful poor and needy, and there these wiser parents find relief, whilst pride in low and in high places pays the penalty of its folly. "It seems that a large part of the children of the poorer classes either are not subject to such treatment, or *manage by some over-ruling Providence to withstand its baneful influence and to come out alive.*" Such is the testimony of the Editor of the *Leeds Mercury*. Too prudent to hint at what is unfashionable, and too wise to inquire into it, he nevertheless states a fact which is well known to the people of *Leeds*, *Halifax*, *Dewsbury*, *York*, *Barnsley*, *Hunslet*, *Keighley*, and *Sheffield* (and he is speaking of these towns), in the whole of which, and numerous others, there are families who never resort to fashionable poisons and fashionable drug-men, but who

having taken advantage of the opportunity, listened to the truths which it has been our fortune to teach in years that are past. We are proud to remember the many friends in these and other towns to whom we have so often spoken and who have been made the recipients of that higher knowledge through which the dangers of infancy are avoided, and the safety of their families secured.

That there is some great truth underlying the rapid changes which are taking place in the public mind regarding the principles and practice of medicine we are compelled to acknowledge, and if we are wise, we shall not be content to stand still and allow ourselves to be beaten out. We speak now to medical men as to all others, not in the spirit of sectarianism, but of positive "medical science," and say, mark well the numerous simple medicines prescribed, and when you are called to exercise your profession, try them, you will find that they are as harmless as food, and having done their work, will leave the body free from the effects produced by the numerous agents prescribed in the Pharmacopœia. Of the terrible sacrifice of life continually going on we need say no more than we have already done, nor need we offer any apology for referring to the subject in the present Chapter, having done so in Chapter VI.; or, if we do, it will be found in the strong and intense desire we have to rescue our profession from the hands of ignorant drug-men, and place it in the keeping of those who will turn their attention to it, and practise agreeably with the dictates of reason and common sense.

APTHÆ INFANTUM, OR THRUSH.

Description.—This is one of the first forms of disease to which infants are liable, that is to say the "first" where the symptoms are distinctly marked. It sometimes makes its appearance almost immediately after birth, but whenever this is the case it will be found that the mother has suffered from intestinal or visceral disarrangement of some kind: generally speaking, however, we may expect to meet with it during the first five or six weeks, or from that to the third or fourth month, not that it confines itself to that period of life, for it has been known to affect children of the same family of all ages, but in such cases the disease puts on a malignant character, and is not to be confounded with the primary type of which we are now speaking.

Causes.—Disease, of whatever kind, character, or type, however remote or various the "causes" is simply a disturbed and vitiated condition of the blood, which is the primary agent of life, and the secret of *cure* lies in our knowledge of this great fact—in the innate or recuperative powers of the body, and in the application of such medicinal agents as agree with the necessities of the case. The beginning and end of the physician's art is to remove obstructions, and assist, through the medium of *hygiene*, *food* and *medicine*, the restoration of the blood to its normal or healthy state. We may not agree with some of our more advanced physiologists who tell us that every blood corpuscle has its distinct life or even in admitting that the "blood is the life," although there might be great difficulty in disproving it after the many facts that have been worked out. We cannot do other, however, than acknowledge that it is the "primary agent of life," and this is quite sufficient for our purpose. The causes of *apthæ* or *thrush*, therefore, may be numerous, remote, and under some circumstances difficult of detection. We know, nevertheless, from the effects that they are somewhere, and that the want of proper ventilation, imperfect nutrition, obstruction and exclusion of light, obstructed respiration, &c., &c., lie at the root of it all.

Diagnosis.—Like all diseases connected with a deranged state of the stomach and intestinal canal, it is preceded by restlessness and a dry feverish condition of the skin. The excretions are irregular and offensive, the lips hot, tongue furred, and mouth sore. Hence the child refuses the breast altogether, or takes it with much difficulty. But these symptoms, many of which are common to other disorders, may not be so positive. The following, however, are certain: tongue white, covered with *papillæ* and crusted, corners of the mouth ulcerated, extending in severe cases to the fauces, throat, stomach, and whole intestinal canal, even to the *anus*, which presents an inflamed appearance, and is studded with small spongy ulcers. It is quite common for mothers to labour under the idea that *apthæ* is one of the necessary diseases of infancy, and that there is no danger connected with it. This is altogether a mistake, and the sooner it is got rid of the better. In strong healthy children it seldom manifests itself in the same degree, and the *indications* of treatment are more easily met; not so, however, in delicate children, hence the mischief

that follows neglect in this and every other form of disease to which they are liable.

TREATMENT.—*Hygiene.*—Satisfy yourself of the "causes." How is the mother situated, or what is the state of her health? Has she a good breast of milk; does she suffer from constipation of the bowels or other irregularities? Has the child breathing room; is it confined in a close cradle or ill-ventilated apartment? Is it nourished from the breast or bottle? Does it receive proper attention, that is to say, is it kept *clean*, and *warm*, and *dry*? Has it been physicked or "quacked" with the abominations of our modern *druggmen?* To overlook any of these preliminary considerations is to miss our way entirely, hence the necessity of enforcing attention; for to the neglect of these conditions or some of them the disease owes its origin and progress. Once again, we say, look well to preliminaries, and remove whatever evils stand in the way. If there is any doubt as to cleanliness, order a warm bath and such other necessary attention as the case requires. Has the mother been incapable of supplying it with the nutrition of the breast; see that the substitute approximates as nearly as possible to this great primary necessity of infant life. These, and other matters attended to, the *cure* will be accomplished with far greater ease and without any of the distressing results that follow so often where neglect and improper treatment are found.

TREATMENT, continued.—*Medicine.*—Bathe or clean the corners of the mouth, lips, tongue, and fauces with cold spring water four or six times daily, and give the following internally:

℞ Simple Tincture of Myrrh ..... Half drachm.
Compound powder of Leptandrin, Four grains.
Geranin ..... Four grains.
Cinnamon water ..... Sufficient to fill a quarter of an ounce phial.

Shake the whole well up, and give six drops in an equal quantity of simple syrup, or equal parts of honey and water, four times a day.

This will be found sufficient in every simple case of the kind. Should the disease be complicated, however, it may be necessary to resort to other measures, but whatever means are employed they should be equally harmless. A more active agent for the purpose of cleaning the tongue,

subduing the papillæ, and healing the ulcers of the mouth and fauces, will be found as follows :

℞ Tincture of Crane's Bill (Geranium Maculatum) ..... Half ounce.
Pure spring or distilled water..... Ounce and a half.
Mix in a phial bottle, and use as an ordinary lotion or wash. A small quantity, just sufficient to saturate a piece of soft cotton cloth, wrapped round the fore finger, will answer every purpose.*

* Should the bowels continue in a relaxed condition after the third or fourth day of treatment; if the offensiveness of the excretions have passed, a quarter or half teaspoonful of the last preparation may be mixed in an equal quantity of simple syrup, and given mixed with the food through the bottle; or if the mother has a supply of milk and suffers from constipation or sluggishness of the liver, it will be necessary to attend to it. In addition to this, it will be well to change the food occasionally. What is known as "corn flour" is very good, if prepared with equal parts of pure milk and water, but not with water alone. It should be changed, however, occasionally for finely powdered biscuit, prepared after the same method, and these again should be laid aside, and a teaspoonful of the powdered *ulmus fulvæ* or "digestive food," as it is comm only called, should be mixed with the milk and water in their stead, and given in the same way. In bringing up a child by the hand, we have only to remember that the nutrition of the breast is supplied by the admixture of different kinds of food; and that whilst one kind only will induce disease in the mother, it will equally induce disease in the child. How to imitate nature should be the great consideration in bringing up a child by dry nursing, or, as we now express it, "with the bottle." An infusion of the red rose leaf is also excellent as a wash, or the red raspberry leaf, or witch hazel. If the disease is preceded or accompanied with spasmodic attacks of sickness, an emetic may be given with advantage as follows: *Syrup of Lobelia*, or *Wine of Ipecacuanha*, from ten to twelve drops, in a half teaspoonful of warm water. It is rare, however, that emetics are indicated, but when they are, there are no better forms than the above. The disease has been divided into three varieties, *apthæ infantum*, *apthæ maligna*, and *apthæ chronica;* they are all dependent upon the same or similar causes however, and differ but in degree; nor can any doubts arise as to the treatment, whatever character it may assume.

The following general and very judicious remarks are from *Copeland's Dictionary of Practical Medicine.*

"Unless hygiene measures be judiciously prescribed, the local and general medicinal treatment will generally be inefficacious. The causes which have produced the complaint ought to be removed as completely as possible, and the patient placed in a dry, temperate, and open situation, in a well-aired apartment. Change of air is in most cases more or less beneficial. The nourishment should be prescribed with care; and if the child be suckling, the milk and health of the nurse ought to be objects of particular attention. The age of the milk, the habits and functions of the nurse, and the state of her nipples requires examination. If the nurse have suckled long, or if she be intemperate, delicate, unhealthy, or cachectic; if the catamenia have been present, or the nipples sore, another nurse should be obtained, &c., &c." * *

** Our purpose in quoting from this writer is to maintain our views of hygiene, and show its power in alleviating and curing, and to remind the reader, whoever he may be, that its "power" to prevent disease is equally as great as its "power" to cure it.

TORMINA OR GRIPES.

Description.—This is one of the many disarrangements from which children often suffer more early in life than in the later periods, and which, when severe, is very distressing. It is little that we need say concerning it, seeing that it is so well known to the generality of nurses and mothers. The word "gripes," in fact, is so expressive, that there can be no mistaking it.

Causes.—Griping and pinching pains, confined to, or passing through the intestinal canal, caused by improper food, or imperfect nutrition, deficient natural vitality, irritation of the mucous membrane of the bowels, diseased liver and spleen, accumulated flatus, obstruction, &c.

Diagnosis.—Tension of the abdomen, contraction of the lower extremities, spasmodic movements of the arms, screaming, passing wind from the bowels, green ill-conditioned fœcal discharges, &c., &c.

Treatment.—*Hygiene.*—From whence has the disturbance arisen, this must be the consideration in all cases, whatever they are. We see the necessity of the inquiry, doubtless, as the prelude to medication. Is the mother suffering from disease, particularly of the liver, pancreas, or stomach, if so, the milk will be vitiated, and this alone is sufficient to account for the sufferings of the child. Nature's laws are so uniform that we can scarcely fail to read them, if they are understood. We take the case now before us. Here is an infant three or four weeks, or as many months old; suffering more or less continually. Now let the mother examine herself, not as she is only, but as she was during pregnancy or gestation, and in nine cases out of every ten it will be found closely related to the present or past condition of herself. Proper attention to hygiene and medicine would have supplied the *fœtus* with a higher and more perfect vitality, the want of which has had much to do in inducing the difficulties under which it now labours. This must not be overlooked; for to remove the cause, if in the mother, is to remove

the effect in the child. If the child is brought up by hand, or with the bottle, look well to the kind of nutrition it gets, and endeavour to find out what best suits it, for there is as much difference in this matter with children as with adults. Observe also that pure air and cleanliness have as much to do in promoting health as in removing disease.

TREATMENT.—*Medicine.*—Observe. What food is to a healthy child, "medicine" is to a sick one, and whatever is administered as "medicine," should be as harmless as "food;" and when it is assimilated with the blood, as all "medicine" more or less should be, it will pass out of the system, not only without injury, but will leave it in a far better condition than when it went into it. All cases of the kind now under consideration lie deeper than the surface, and if we hope to remove them, more than immediate attention will be necessary. The more distressing symptoms may, it is true, be relieved with the removal of the flatus and fœcal matter. We have no right to expect more than this, however, except in acute attacks.

℞ Tincture of Ginger ..... One drachm.
Podophyllin ..... Six grains.
Shake up and give from four to six drops, in a quarter or half teaspoonful of warm water and honey, every three hours, until the bowels are relieved freely.

This medicine should be always at hand, ready for use, and as often as any sign of the complaint appears, it should be used in the same way. Friction over the bowels with the warm hand, and chafing the feet before the fire, will assist in affording relief. In very severe attacks, flannels wrung out of a hot infusion of *hops*, and laid over the abdomen, will be found beneficial. In the deeper-seated or chronic form of the disease, the following medicine will be necessary:

℞ Tincture of Ginger ..... One drachm.
Leptandrin..... Six grains.
Shake up and give four drops three times a day, in an equal quantity of cold water.

NOTE.—The former medicine will afford immediate relief; and this, if persevered with, will cure it. In all cases, however, the immediate causes must be removed, and hygiene or the conditions of health strictly enforced.*

*"Tormina" is one of the forms or types of disease from which so many thousands of children annually die. Parents know nothing of the remote causes, and seek relief in opiates and powders, the whole of which, with rare exceptions, are composed of poisons; hence they are lost, not so much from the disease (which is at any time serious) as from the drugs.

DENTITION.

Description.—From the remarks already made, the student will be prepared for much that we shall have to say upon the subject of "dentition." To "cut" or grow the teeth is as natural to a healthy child as growing the fingers or toe-nails; and as health depends upon the application of natural conditions, these, if attended to, will enable the child to pass through this ordeal with as much safety as through any other. The disturbances or actual disease therefore that accompany dentition should not be attributed to it, but to the remote causes which, from the transmission of the *germ*, have co-operated in producing morbid or deficient vital force. How, let us ask, is the human being reproduced and its body built up? The reply must be in accordance with well-established facts. Apart from the blood there is no life, and the character and force of that "life" can only be in proportion to its quality, volume, and normal distribution. Anything that interferes with, vitiates or deprives the body as a whole, or in part, of this "life"-creating and "life"-sustaining fluid, takes from it the power upon which it depends for its preservation, sustention, and growth, throughout every phase of its existence. If the conditions of health are not supplied, the results that follow will be imperfect nutrition, and wherever this exists, the blood is vitiated, and the body debilitated and dwarfed, becomes incapable of supplying the different necessary proportions of organic and inorganic material. Nature struggles hard under these difficulties, but she can not accomplish impossibilities. If the blood does not contain the calcareous matters of which the teeth are composed, it cannot be deposited, neither in the form of teeth nor bone, hence the numerous forms of disease that wait upon or follow wherever the deficiency is found.

The first appearance of the teeth generally begins about the third or fourth month, if the child is in a moderate state of health, but it may be delayed to a much later period. This will be determined, how-

ever, by its immediate condition, or the remote causes by which it has been influenced. If it was born of robust parents, and the conditions of health have been supplied, the process of dentition will be completed by the end of the first year or soon after; if on the contrary it was born in disease, and surrounded afterwards by the circumstances so common to ignorance and poverty, it may not be completed until the end of the second, or even third year (presuming that it survives), or if it has been physicked with the poisons of the shops, or if, from disease and drugging, proximate or remote, (either in one or both) its parents suffered from decay of the teeth at the time of the child's conception, dentition may not only be delayed, but the teeth will begin to decay almost as soon as they appear, and in some cases before they have passed through the alveolar processes. It is a consideration that well deserves the attention of society. *Can these abominable poisons be superseded by harmless and efficient medicines?* That they can we are fully satisfied; and any man or body of men who honestly labour to bring about such a result, are worthy not of encouragement and support only, but of the highest honours that the nation has at its command.

The following are the number of the first or "milk teeth," as they are commonly called:

Four Incisors, or front teeth in each jaw		8
Two Canine, or side teeth	ditto	4
Four Molars, or back teeth	ditto	8
		20

They generally make their appearance in pairs—two incisors of the lower jaw first, the upper jaw next—these are followed by the lateral incisors, and these again by the canine teeth, although the molars occasionally precede them. There is nothing more pleasing to a mother, or beautiful in a child, than a complete set of teeth, and nothing so distressing to both as the torture which often accompanies their growth and rapid decay. In the fœtus they may be traced to their roots as early as the third or fourth month, some writers say earlier even than this. At birth, the process of growth, which has considerably advanced, gradually passes on, as already said, to the full completion of their development and number by the end of the first year or soon after. The first consideration in the treatment of dentition in no way differs from that of every other malady.

Causes.—In the fœtus the teeth may be traced to their roots as early as the third or fourth month, some writers say earlier even than this. At birth the process of growth has considerably advanced, and gradually passes on to the full completion of their development and number by the end of the first year, and this process, whether of the *hair*, *nails*, *bone*, *muscles*, *nerves*, *blood-vessels*, *teeth*, or any other part, is purely natural, and there are no exceptions in favour of any one organ. The body, as a whole, is an unit, and if any part is deprived of its nutrition, the whole must suffer. In so far, therefore, as the teeth are concerned, we cannot see that there are any great difficulties to be overcome. Attend to the conditions which arise out of other causes, and the teeth will find their way without any danger whatever. That there are certain morbid manifestations during "dentition" in every child, however healthy, we readily admit, although in many cases they are so slight as to scarcely attract notice; generally, however, there will be found under the most favourable circumstances, some slight irritation, but nothing beyond this, unless there is something deeper than that which belongs to dentition itself.

Diagnosis.—What age is the child? Four months, five, six, seven, eight, nine, ten, eleven, or twelve. Is it ill? Ah! "Dentition." Yes! it is cutting its teeth! Which of them? Is it the *incisors*, *canine*, or *molars?* Now just let me say that this is a matter of little moment to the mother, nurse, or medical attendant, beyond the fact that they are called upon to use whatever local means may be necessary to afford relief for the time being; but these, under no circumstances, should consist of the cruel practice of scarification, or lancing, so commonly employed in such cases.

Treatment.—*Hygiene.*—In "dentition," as in every thing upon which the health and growth of the body as a whole depends, the conditions must be enforced. The character of the food, sleeping apartment, ventilation, attention to cleanliness, good nursing in the open air when the weather is favourable, &c., &c.; and if to these we add, "begotten of healthy parents," nothing more will be needed to ensure the child's safety.

Treatment.—*Medicine.*—"And what is the use of saying anything of medicine, if there is no disease?" Methinks we hear some doubting mother, or one of our numerous erudite orthodox brethren say, "There can be no medical treatment needed if such be really the case." True! none is needed, and if this *little* fact is understood and attended to, it will be a great blessing to mothers, and equally so to their infants. If the child is otherwise in health, that is to say, if it sleeps well, takes the breast or bottle, whichever it is, regularly, if the respiration is free, skin warm and moist, and the excretions regular and inoffensive, let the teeth alone. The mother's finger, first dipped into cold water and rubbed over the surface of the gums a few times daily, will soothe the irritation and do all that is needed. If, on the contrary, there is evidence of general disorder, as there always is where inflammation of the gums, excessive flow of saliva, irregular pulse, offensive stools, &c., &c., are found, we may be sure that the time has arrived for medical supervision. Beyond this, we have very little to say upon the subject of dentition. In ordinary health, an india-rubber or coral ring may be hung around the child's neck; there is nothing equal, however, to cold water and friction with the finger. We have been speaking simply of "dentition" remember, and not of the diseases out of which its difficulties and dangers grow. These will follow in order, and we shall be careful to overlook nothing that a well-educated mother or father should know, nor anything that a prudent physician should do.*

The old adage, "doctors differ," comes in here with astounding force. Dr. Marshall Hall knew by experience, as we all do, that convulsions are common during "dentition," he therefore "scarifies"

* Marshall Hall, than whom no greater authority can be found in medical orthodoxy, speaking of dental treatment says, "The *focus* from which the nervous actions emanate is, I believe, not as is generally imagined, the nerves of the mere gums, seated over the prominent parts of the teeth, but the nerves which may be emphatically termed the *nerves of the teeth themselves*, [branches from the anterior and inferior dental nerves passing through the alveolar processes, and giving off filaments to the molars, canines, and incisors. *Ed.*] the nerves which enter into the fangs and substance of the teeth. *It is to the base of the gums, not to their apex merely that the scarification should be applied.* * * * * Better scarify the gums *unnecessarily* one hundred times, than allow the accession of one fit or convulsion from the neglect of this operation."

or cuts deep into the gums in order to remove congestion by abstracting the blood and separating the nerves. He takes no note of actual causes. Of hygiene he says little, of rational medication nothing, but on "scarification" he is exquisitely grand. That it would be just as difficult to convince him of the folly of such cruel and unnecessary measures, as it would to have reasoned the Sangrados of the old phlebotomising school out of their practice, we feel satisfied. They were convinced when the common humanity of society raised its voice against it, and Dr. Marshall Hall, we anticipate, could be "convinced" only through the same power. When mothers and fathers shall know the truth, the cruelty of such treatment will cease, not before. See the following and other forms of disease, and say in what way children are to "cut" their teeth with the internal viscera in a state of continuous disturbance. How can 'teeth'-making go on where the blood is vitiated, and where the supply of calcareous material is cut off? Folly can go no further than "scarification" under such circumstances, and we feel ashamed to be forced to reason upon such absurdity.

CONSTAPIO *(Constipation).*

Description.—This is a condition of the body which can scarcely be considered as a disease, it nevertheless requires to be understood and treated at particular periods in order to prevent consequences that may at any time become serious. In a state of robust health the fœcal excretions of infants are passed at periods varying from eight, ten, or twelve hours without effort or pain, and if during the first three or four months, or even later, any cause exists, whether constitutional or accidental, to induce a "constipated" condition, it will be necessary to adopt such measures as prudence and experience may deem requisite. There will be no great necessity to enter into a minute description of this particular condition, seeing that it is so well known to nurses and mothers generally.

Causes.—These may be constitutional or accidental, that is to say, connected with some peculiar idiosyncrasy of the mother or father, or both;—from some condition that may have arisen since the birth, or from causes beyond our comprehension, whatever they

are, however, it will be necessary to attend to them, for constipation, if allowed to progress, will be almost certain to end seriously.

Diagnosis.—A tense hard condition of the abdomen, retention of the ingesta or fœcal matters, occasional straining, ending in abortive efforts, or in the discharge of flatus only.

Treatment.—*Hygiene.*—In this, as in all cases, our first duty is to trace out the causes. What was the condition of the mother during gestation or pregnancy: was her health generally good, and had she nothing to complain of as regards constipation so common to many women? If we are satisfied that the cause is not there, and that the mother's health is as it should be, we should endeavour to ascertain (particularly if it be a male infant) the general condition of the father, not that this will be any great advantage, beyond the clue that it will give us to the remote or germinal origin of the difficulty. Presuming that the mother suffers from 'constipation,' all that will be necessary in nine cases out of every ten (if she suckles the infant), will be to treat her for it. Remove the causes, whatever they are, which interfere with healthy lactation, and nature will do her own work. Of this complaint, however, we shall speak more freely under the head "diseases of women." For the present, it will be sufficient to say, if the mother suffers, whether from constipation, confinement within doors, inactivity, sluggishness of the liver, or any cause of the kind, let it be removed. Exercise in the open air will be necessary; free ventilation, and above all, attention to diet and the skin.

These little considerations settled, the next is "medicine." "Take no 'medicine' of any kind," say some very anxious well-meaning people who have been led to believe "medicine" and poison synonymous. "Do not touch it, it is all bad, and you will do better without it." Good kind-hearted adviser, whoever you are, stop, I pray you, until you understand what "medicine" is. Here is an apple, ripe and good. Is it food or medicine? Well! never mind it is an apple, and we are about to prescribe it medicinally for the mother.

℞ Caulophyllin ..... Five grains.
Podophyllin ..... Five grains.
Powdered Ginger.. ..... Ten grains.
Finely-powdered Sugar ..... Twenty grains.

Triturate or mix well in a mortar. Divide into fourteen parts, and take one part in a roast apple once a day, about two hours before bedtime, as follows: take a little of the apple out with a teaspoon, mix the powder with it, which may be done by simply indenting the small portion of apple in the spoon, placing the powder in the middle and covering it over by turning up the sides. The remaining part of the apple should be eaten, and the pericarp or hard inside and skin thrown away. A single dose, or fourteenth part of the whole, will be sufficient daily; but two or three roast apples may be taken every day with advantage.

Presuming, we say, that the "constipation" under which the child labours, however stubborn or severe (if no other evil has yet arisen from it) arises from the mother (and in nine cases out of every ten it does), the remedy prescribed will meet the difficulty; and when we remember that medicine, like the apple, consists simply of organised substances—assimilates with the blood as ordinary food, and that the process of digestion changes the abnormal condition of the system, and restores the lactation upon which the infant depends for life to a condition fitted for sustaining and building it up, we may easily understand how truly beautiful and yet withal how simple this great science is.

Treatment.—*Medicine.*—In considering this part of the subject it will be necessary to bear in mind that the case is one of "constipation," and that although we have treated the mother medically, it can only be received (as it relates to the child) "hygienically," inasmuch as the medicine stands in the same relation to the child as food. It is therefore simply dietetic, and this is one of the great branches of medical science. Having said this much, we fancy there will be no difficulty in understanding the treatment of the child. In no case that we are aware of can the mother fail to be benefited by the course recommended. As regards the medical treatment, it should be distinctly understood that so long as the child takes its nutrition from the mother, it partakes of the constitutional peculiarities and changes that are continually going on, and that whether these be good or bad, it must partake of them also. Apart from these facts, friction with the warm hand over the bowels will be useful daily, and if the child is strong, a cold water cloth should be applied

as a belly-band by night, and a cold bath in the morning, not forgetting good ventilation and nursing in the open air daily. If it is being brought up by the hand, the same attention must be paid to its food as recommended in "dentition;" and instead of lump sugar to sweeten it, use treacle, or boil a few prunes in a little water, and mix with the milk instead of simple water alone. I do not know that in any case of "constipation" these directions (particularly when attended with maternal medication) have ever failed to remove it.

The following may be used, however, in addition to the means already recommended, whenever necessary.

℞ Compound Powder of Leptandrin.... Five grains.

Mix in a half drachm of simple syrup, shake up and give six drops three times a day, at any time until the bowels are relieved, and continue its use until their healthy tone is restored, *i. e.* until they act regularly at least once or twice in twenty-four hours.*

STOMATITIS.—*(Inflammation of the Stomach).*

Description.—It need scarcely be said that the stomach is the great centre of sympathies;—that at any period of life it is liable to disease, and that there is no part or particular organ of the body where attention is so much needed, because life in all its normal and abnormal conditions is more or less dependent upon it. "Stomatitis" is an inflammatory condition of the stomach, common to infancy, but more particularly to children vitally deficient. It is remotely related to the general condition of the system, but more immediately to some predisposing cause, inherited it may be from one or both the parents.

* The common practice is, to either allow the "constipation" to go on for several days together, and then to get a purging powder from some drug-shop, or to be constantly purging with little pink or grey mercurial powders, prescribed under some higher authority. Any thing of this kind is bad, and is sure to end in injury.

In addition to the means already recommended, it will be sometimes found that the difficulty lies in the *rectum*. A plug of hard fœcal matter obstructs the passage. In this case, relief may be obtained as follows. Make an ordinary lather of soap and tepid or warm water, fill a small ounce syringe, oil the nozzle, and inject the contents into the bowels. This will rarely be necessary, however, if the other directions are attended to.

Causes.—General debility, sudden chill or check of the capillary circulation, deficient lactation, imperfect ventilation, improper food, &c., &c.

Diagnosis.—Pain and distortion of the facial muscles, contraction of the limbs, particularly of the lower extremities, spasmodic movement of the fingers, rejection of the breast, vomiting, restlessness, inflammation and ulceration of the mouth, tongue and gums much coated, putrid state of the breath, &c.

Treatment.—*Hygiene.*—Examine the causes closely, and remove whatever may in any way interfere with the cure.

Treatment.—*Medicine.*—Let a warm water bath be applied at once, as follows: Immerse the body up to the chin for about three or four minutes, after which wipe dry and wrap in warm flannel. This done, prepare a cataplasm or poultice of ulmus fulva (slippery elm powder), mix a large tablespoonful in hot water sufficient to form into a soft dough-like substance, spread it between soft cotton cloths—apply warm over the region of the stomach, and keep it there for ten or twelve hours, until the acute or severe symptoms are removed. In addition to these measures, which are merely palliative, administer an emetic, as follows:

℞ Lobelia Syrup ..... half drachm.
Give in doses of six or eight drops every ten minutes, in a little mint tea, until the stomach is vomited freely.

It may possibly be necessary to repeat the emetic about the second or third day, this must be determined, however, by the state of the mouth and tongue. If these remain furred, it will be proper to do it, but if any very marked improvement is going on, it will not be necessary. It is not always that 'Stomatitis' is attended with ulceration of the mouth and tongue, but when it is, see *Aphtæ* or *Thrush*, pages 121, 2, 3, and 4, and apply the same remedies.

The following medicine may be given internally:

℞ Tincture of Ginger..... ..... Half drachm.
Tincture of Podophyllin ..... Half drachm.
Oil of Carraway..... Two drops.
Mix and give two drops in a little Balm Tea, sweetened with honey, four times during the twenty-four hours, daily.

The above treatment is harmless and effective, and will rarely or never fail of effecting a cure unless in cases of extreme complication. Nor should it be forgotten that our medical efforts, however good, do no more than remove immediate effects, and that unless attention be paid to hygiene or the conditions of health, and care be taken to restore or build the body up after the disease is removed, that a relapse may follow; or, that the efforts which nature has been compelled to make to disencumber itself of the malady have left the system (originally deficient of vitality,) without sufficient recuperative power to restore it; in such cases death will result from the natural condition of the child, rather than the disease.*

DIARRHŒA *(Looseness of the Bowels.)*

Description.—This is a disease common to Infants, and if allowed to continue is almost sure to end in *Marasmus, Rickets, Mesenteric* disease, or death. It is purely a disease of weakness, complicated by an aphthous condition of the stomach and intestinal canal, and as a consequence incapacity of the absorbent system to take up the nutritious part of the food; the result is, that whatever is taken passes readily into a state of putridity, and is carried off without any of the beneficial results that follow healthy assimilation.

Causes.—Like many other diseases to which infants are liable, it may have its origin in hereditary transmission. Mothers subject to a relaxed or anæmic condition of body, arising from constant confinement, sloppy ill-prepared food, and other causes, can scarcely do other than give birth to anæmic children, and where this is the case diarrhœa is nothing more than the effect of a cause, as all others are that come under our immediate notice.

* Should the mouth and tongue appear clear, and abortive efforts of vomiting come on, a single drop of "Antispasmodic Tincture" given in a little spearmint tea, sweetened with honey, every four hours throughout the day, will be sufficient to arrest it at any time.

We have succeeded in removing it times out of number with the first two or three drops.

It is only where the symptoms arise from an irritable condition of the mucous membrane that this remedy will be of any avail. In cases of repletion, or where there is anything to be removed, the "Emetic" must be given.

DIAGNOSIS.—Attenuation or wasting of the body, constant evacuations of thin curdled or mucous clay-like slimy motions.

TREATMENT.—*Hygiene.*—In this as in every other case consider well the causes, and remember that "Hygiene" is one of the great primary branches of medicine, a thousand times more important than the Latin and Greek of the Medical Council, and one which when well understood and applied, enables the medical attendant to command a degree of success totally unknown to those who are content simply to treat disease without any regard to this knowledge.

What are the causes then? this, we say, is the first work. Is the child being suckled by the mother? see to it, and make sure that she is in a condition to supply the healthful nourishment which the case demands; or is the child badly nursed, and confined in an ill-ventilated apartment? see to this also, and remember that these matters alone, in nineteen cases out of every twenty, will effect the cure if the unfavourable circumstances can be superseded by the favourable. Find me a child dying by inches of "diarrhœa," give me a good robust healthy wet nurse, let it have attention and pure air, and the nutritive quality of the milk, which is the very essence of vitality, will do all that is necessary. The recuperative power is in the nutrition, and the body of the child is built up from the health-creating source upon which it depends for its daily life.

Now bring me a healthy robust child, perfect and beautiful, the very picture of an infant Hercules, and place it under the circumstances from which the poor suffering child has been rescued. Instead of the rich healthy nutrition which has done so much to make it what it is, it is now supplied with the vitiated lactation of an anæmic circulation, and the result is a gradual poisoning or breaking up of life. There is no disputing this fact, and we introduce it in order that the science of life may be seen and read by all.

TREATMENT.—*Medicine.*—What hygiene can do may be easily seen from the above facts. But possibly the child may have never had the breast, for the reason that the mother was too weak to suckle it, or even to survive its birth. In either case look well to its

management—see to the *bottling*, nursing, and all the little trifles that such 'little' people require, if you hope to rear it. These matters looked to, prescribe the following:

℞ Tincture of Cinnamon ..... Half drachm.
Podophyllin ..... One grain.
Geranine ..... Five grains.

Mix and give two drops in a little infusion of raspberry leaf, sweetened with lump sugar, four times a day.

The following may also be used daily, if the child is being brought up by hand:

℞ Powder of crane's-bill (Geranium Maculatum) ... Half a drachm.
Boiling water ..... A small teacupful.

Make an infusion, let the powder settle, mix a tablespoonful of the clear liquid with the milk each time it is prepared, and let the child take it through the bottle.

In these simple remedies you have the elements of which the blood is deficient, and in this the secret of cure lies.*

CORYZA *(Snuffles.)*

DESCRIPTION.—This is common in infancy, and like the generality of diseases to which children are liable, requires to be well understood and judiciously treated. It arises either from an obstruction of the capillary circulation in the *Schneiderian* membrane (lining of the cavity of the nose), or from some hereditary cause or causes which it is sometimes difficult to trace.

CAUSES.—Anything that obstructs the circulation in the parts affected, such as a sudden chill from cold water, or exposure to a current of cold air, leucorrhæa or whites during gestation, pruritus or apthous condition of the vulva, &c., &c.

* Wherever there is a furred condition of the tongue, and symptoms of sickness or a morbid condition of the stomach, if the child is not too much reduced, an emetic may be given at once, and occasionally as the case advances (see "Stomatitis" Lobelia Syrup, page 135,), and take particular notice of the fact, that in cases of this kind you are dealing not only with actual disease, but with deficient vital force; and that you are simply seeking to do by hygiene and medicine that which nature had not the opportunity of doing. "Even the Gods," so says the old classical adage, "must yield to the fates;" so life and health must yield where the conditions are not supplied.

DIAGNOSIS.—The disease is very distinctly marked, and may be simple in its character, or purulent. If it is the result of cold, the difficulty of removing it will not be great; if, on the contrary, it arises from some one of the remote or deeper seated causes, we must not anticipate immediate benefit. It may be known from the snuffling and difficulty attending respiration from accumulation and obstruction in the nasal openings, and from the purulent and offensive sanies constantly secreted and discharged, particularly during sleep.

TREATMENT.—*Hygiene.*—This should never be lost sight of under any circumstances; not that the benefits to be expected from it in cases such as these are so great as in many others, nevertheless it must be looked to. See that no direct currents of cold air counteract your efforts to remove the capillary obstruction to which we direct attention. Examine carefully the general condition of the child, and if it is well nourished and in all other respects well, there will be little to do but simply to relieve the symptoms by external applications, and by waiting patiently upon time.

TREATMENT.—*Medicine.*—If, as we have already said, the snuffles are the result of cold, and confined exclusively to the nose, rub in a little fresh butter or lard on either side of the nasal bones two or three times a day, and with a bit of soft cotton lint twisted into a round tight point, pass it, covered with a little cream, skimmed from new milk, five or six times a day. Inflammatory disease runs a regular course, and where a simple membrane only is implicated there need be no concern for consequences. Should the discharge be copious, however, and the respiratory efforts give evidence that there is obstruction and accumulation of secretion in the posterior nares and pharynx, more active measures must be resorted to.

See Formula for "Emetic" as prescribed in "Stomatitis," page 135, and administer when necessary, *i.e.*, at any time whenever the accumulation interferes with the breathing, in order that the secretion may be prevented from passing into the stomach, where it cannot fail to do injury.

These little matters attended to, and they are of the greatest

importance, although apparently trifling; let the following be given internally:

℞ Tincture of Queen's delight (Stillingia Sylvatica) Half drachm.
Fluid extract of Clivers (Galium Aparine) ..... Half drachm.
Mix and give from two to three drops in a little of the infusion of cranesbill herb (Geranium Robertianum), sweetened with honey, four times a day.

It must be remembered that the cases treated in this chapter are those of infants under twelve months of age, and that the medical attendant should not forget to pay particular attention to whatever complications may arise during medication.*

It often happens, however, that the best efforts of men engaged in the removal of error fail to produce conviction in the minds of those whose influence in society is greatest, unless they can bring some authority to bear upon the subject, whose position and opinion upon all such questions have long been received as oracular.

To such we recommend the following:—

"It seems to have been thought, in some quarters, that I had renounced my faith in physic; that I undervalued the resources and usefulness of our art; such a notion is the very reverse of the truth; I am anxious to have the effects of remedies carefully ascertained and certified; first, because I have so great faith in their real force. *What I deprecate, what I would fain see altered*, what it is one great aim of this society to do away with, *is the vagueness of aim, the uncertainty of result, the merely tentative nature of too many of our prescriptions.* Far from thinking that our warfare with disease is a vain warfare, *I am only desirous that our arms should have the precision of the modern rifle, instead of the wild flight of the old-fashioned smooth bore.* Probably I have even greater reliance than many physicians upon the virtues of drugs—OF WHAT USED TO BE CALLED SIMPLES—a word I like, because it helps continually to suggest to one's mind the golden rule, THAT THEIR ADMINISTRATION SHOULD BE SIMPLE; that they should be mixed as little as possible with other substances which might confuse and vitiate the conclusions to be drawn from their actual operation. I am one of those who hold to the doctrine, always within its proper limitations—the limitations assigned by Bacon —the DOCTRINE OF FINAL CAUSES SO DESPISED BY MODERN PHILOSOPHY. I BELIEVE THAT THOSE LITTLE ESSENCES WHICH HUMAN RESEARCH AND HUMAN INGENUITY HAVE SUCCEEDED IN DERIVING FROM VARIOUS SUBSTANCES IN NATURE, and which WHEN APPLIED TO THE HUMAN BODY, SOMETIMES EVEN IN VERY MINUTE QUANTITIES, HAVE A POTENCY SO MARVELLOUS AS TO ABOLISH PAIN, TO COMPEL SLEEP, TO EXTINGUISH

* The power of these simple remedies over the worst forms of disease can be understood only by those who know it practically, nor will it be necessary to introduce cases by way of proof. Our experience and successful practice for the last quarter of a century are the best guarantee for the truth of the statements made.

FEVERS, TO STOP FOR LONG, PERHAPS FOR EVER, THE RECURRENCE OF PAROXYSMS OF EPILEPSY WHICH HAVE CONTINUED TO RECUR FOR YEARS, WERE IMPLANTED IN THESE SUBSTANCES BY THE CREATOR; AMONG OTHER USES IT MAY BE FOR THESE VERY SERVICES TO MANKIND, AND THAT THERE LIE CONCEALED IN OTHER SUBSTANCES, AND ESPECIALLY IN THE VEGETABLE KINGDOM, MANY ANALAGOUS HEALING POWERS, WHICH IT IS A PART OF MAN'S MISSION AND PRIVILEGE, AND WILL BE HIS GREAT REWARD TO SEARCH AFTER, AND DISCOVER BY the intelligent and scientific quest of such new remedies the verification of the exact properties and effects of those we already possess, in order that the active and useful may be rightly applied and the worthless discarded."*

CONVULSIONS.

DESCRIPTION.—There are few mothers or nurses but have seen something of this particular form of disease; but beyond this they have no definite idea, nor, indeed, is there anything really known of a positive character by any one. That it is common, particularly in the early period of infant life, we know, but why or how it is that often without any premonitory symptoms, children are attacked and die almost suddenly, we are in no condition to explain. It is one of those particular forms of disease which undoubtedly have their seat in the nervous system, but which are too obscure to be clearly defined. Much has been written by men of enlarged experience in the profession, but up to the present we have failed to arrive at anything like a satisfactory solution.

CAUSES.—There can be no doubt but that convulsions are to a great extent an effect of hereditary causes, indeed, we know that it is so, and this predisposition may evince no signs in the constitutional character of the child, until it is called up by some immediate excitement. It is to this fact that we are compelled to attribute the rapid development of the disease, and its equally rapid effects. A child in perfect health apparently, is suddenly attacked with convulsions, and dies before it is possible even to obtain medical assistance. That these cases are exceptions we admit, nevertheless we know that they now and then occur, as if to shake us out of some cherished

*Farewell address of Sir Thomas Watson, late president of the Royal College of Physicians, to the Clinical Society of London. From the *Medical Press* of February 3rd, 1869.

theory through which we hoped to have settled the question for ever. Children of delicate and rachitic constitutions, are more subject to these attacks than the healthy, although it will be found that many of the feeble pass through their brief existence and die from other diseases; whilst children much stronger, are comparatively free from other diseases, and die of this.

Diagnosis.—It will be seen from these remarks that there is in children, as well as in adults, some peculiar idiosyncrasy, which lying latent in the system is brought out or developed by particular causes, and that these acting upon different temperaments produce different forms of disease. Thus an irritation may have been set up in the stomach or intestines, from improper nutrition, sudden exposure, or other cause. In one case it may lead to "stomatitis" (inflammation of the stomach), in another to "tormina" (gripes), in another to "vomitus" (vomiting), and in another to "convulsions." If we accept this as the correct diagnosis of a malady so generally known, and I cannot see that we can accept any other, we know where we are and what we are called upon to do.

Treatment.—*Hygiene.*—What is the condition of the child? Is it well nourished and apparently in health? Is it being brought up by hand or the breast? Does it suffer from constipation of the bowels? Does it start in its sleep? Is it restless and fretful, &c.? Now these are just the little ordinary matters that we are bound to look to. A child may appear well, in fact be plump and hearty, and at the same time its bowels may not have been relieved for forty-eight hours and more, and this may have gone on without the least apprehension of any harm; or with a view of affording relief it may have had something given it. What has it been? Does the mother know? No! it was something from the druggist, a small powder that she keeps by her (as many others do) for either this or some other purpose. She has been taught to believe that "convulsions" and many other disorders are caused by dentition, not that they deprive the blood of body-making and teeth-making material, and that consequently the teeth cannot appear because they are not there, of this simple truth she knows nothing, and is content to see its gums "scarified to the very roots," or to give anything and everything that

folly may prescribe. In "convulsions," as in "cutting the teeth," the great secret lies in attending to the general health. Look well to hygiene, and when anything irregular arises in the secretions or excretions, do not wait until it is developed into actual disease, but remove it at once. "A stitch in time saves nine." Think of this, for nineteen out of every twenty lost in convulsions may be attributed to this cause.

TREATMENT.—*Medicine.*—It very generally happens, when called in cases of this kind, that the child has just come safely out of an attack as we enter the house; but this is no reason why active measures should not at once be taken. Without any particular concern, therefore, for the convulsions, which are merely effects arising from some deeply-seated causes, we must endeavour to discover what these are, and treat them accordingly. If the stomach is disordered, as it is almost certain to be, give an emetic at once; this done look to the condition of the intestinal canal, and remember that whatever is given as medicine should be as harmless as food, that is to say, it should do its work, and leave the system uninjured. In all cases where there is a predisposition to convulsions, the treatment should be as follows:

℞ Lobelia Syrup.....Half drachm.
Anti-spasmodic Tincture .....Six drops.
Mix and give from six to eight drops in a little of infusion of Mugwort (Artemesia vulgaris) every ten minutes, until the stomach is freely relieved.

Presuming this has been done, and the child has again taken the breast or been bottled, as soon after as prudence shall dictate, which will be in the course of ten or twelve hours, triturate with a little sugar—

℞ Compound Powder of Leptandrin.....One grain.
Mix in a little of the 'infusion,' and give once or twice during the twenty-four hours, or until the bowels are relieved freely.

There is but one secret in the cure of this disease, and that is, to see that nothing interferes with the free exhibition of the natural laws or conditions of health,—to watch closely every symptom of disturbance, and remove them before they have power to excite into active development the latent disposition. But, it may be asked, what is to be done if the convulsion is actually on? Our reply

is, as little as possible, for if from its severity, or length of time under which the child has suffered, it is likely to prove fatal, anything violent will only assist to bring on the crisis.

Keep the head elevated, remove everything that has a tendency to obstruct a free current of air; apply friction to the hands, spine, feet, and abdomen, and if the remedy is at hand, the mother or nurse may simply moisten the child's lips with a little *Antispasmodic Tincture*, and rub it upon the gums and tongue. It is useless to attempt more than this. Baths, leeches, and all violent external applications are of no use whatever.

It is quite possible that this work may fall into the hands of some medical professor who may never have ventured upon the use of "Lobelia" from the supposition of its poisonous qualities. If such should be the case, let me remind him that the same objections have been raised against every medical and dietetic, and indeed against every discovery. The *Peruvian bark* is an example of the former, the *potatoe* an example of the latter. The attempt to settle the value of a discovery by argument is a waste of words, and we prefer to trust and wait upon time; but the folly of man was never displayed in a greater gush of words than in the following:—"Lobelia Inflata (Indian tobacco,) is a native of North America. Its poisonous qualities were first noticed by its effect upon cattle that had accidently eaten it. Many eminent physicians in the United States have, from time to time, studied its action. It has a somewhat nauseous and irritating smell, and a burning acrid taste somewhat resembling tobacco. The dried herb, as imported, is of a yellowish green colour, and is usually prepared by the Shaking Quakers of New Lebanon (Pariera). It contains a volatile oil, which, when distilled with water, imparts to the water the smell and acrid taste of the plant; also an acid which has been termed 'Lobelic acid,' and, lastly, the active principle of the plant that has received the name of 'Lobelina,' but about which little is positively known. Although it was not introduced into England prior to 1829, when Dr. Reece proposed it as a specific in asthma, it had become a favourite quack medicine in America as early as 1800. In the year 1809, a man of the name of Samuel Thomson was tried and convicted of poisoning a man with it. Now Lobelia is a poison, not in any way singular in this respect, that is, *it is frequently an antidote to itself;* and fortunate indeed it is for so many patients that it proves so.

"In giving it to animals I have found in many cases such violent vomiting produced, that *the poison must have been entirely got rid of, for they often recovered after* most severe symptoms. In one case, however, in which I gave a small terrier a drachm of the powdered leaves and seeds, which were retained, death resulted in about twenty-eight hours and a half."

On poisoning by Lobelia, by Mr. Charles Meyott Tidy, M.B., M.S., Joint Lecturer on Chemistry at the London Hospital.

We have no words to bandy with this gentleman, nor shall we

say more to him than just this: "you know nothing about it." To all, however, whose reason is not obscured or lost in the clouds of prejudice, we would say—

1. It is only "American cattle" that poison themselves with indigenous plants; English cattle are not so foolish.

2. He contrived to kill one dog; just a "small terrier;" what a shame; could he not have choked the little animal with a lump of beef, and killed it that way? Suppose we admit that he 'killed' the animal with "a drachm of the powdered herb and seed!" What of that: he gave the medicine when it was not wanted, and a great deal more than he should have done. A man can no more give active medicine when it is not necessary with impunity, than he can give food; in either case he does wrong; but we do not say he did not kill the "small terrier." We have tried the experiment upon big dogs many a time, without killing them; and upon thousands of big men, big women, and big and little children, without killing any one of them; and when we tell this "joint lecturer on chemistry at the London hospital," that Mr. Richard Bean, of Leeds, imports at least a half ton of this poison yearly,—that many others as well as him, and a host of smaller dealers, import it, and that all this is used medicinally, he will see how truly ridiculous his statements must appear. Is everybody blind and 'daft,' that men can take and give so much poison, and kill people with impunity? Pshaw!

As regards *Pareira*, Bigelow, and the whole host of scribblers, including himself, they are all at sea. The fact is, old Dr. Thacher, author of the American Dispensatory, one of the greatest fanatics that medicine ever produced, (and God knows it there have been some very 'great' ones,) told the same story at first in a foolish book, which all others have since retailed, the "joint lecturer" to boot.

Once for all, we say, lobelia, prudently employed (as all medicines should be), has never been surpassed as a remedial agent, and there is nothing that we are acquainted with that could well supply its place. Of quackery we know little, of prejudice less, and of Charles Meyott Tidy, M.B., M.S., nothing more than we have a right to presume from what he has written; and having taken him kindly up, we put him 'kindly' down.

INFLAMMATION OF THE CHEST.—*(Respiratory Organs.)*

Description.—The lungs fill up the cavity of the chest, and their purpose is to receive the *oxygen* from the air, and the venous or exhausted blood from the heart, in order to prepare it for the purposes necessary in the building and repairing processes continually going on in every part of the body. The entrance of the air is through the nostrils and mouth; from thence to the *larynx*, *trachea* and bronchial tubes, which ramify throughout the whole structure or substance of the lungs; and the entrance of the blood is from the right ventricle of the heart, through the pulmonary arteries.

Of the circulation we shall have to speak hereafter, it will not be necessary therefore to enter upon the subject here; we shall content ourselves, then, by merely saying that any organ or part of the chest may be attacked with inflammation, and that whilst it is necessary for the medical attendant to know, as he should do, what part is affected, that, as inflammation is simply congestion or obstruction of the circulation through the capillary ramifications which anastomose upon the mucous surfaces, or throughout one or more of the organs or parts necessary to life, it must consequently become serious in proportion to the extent of the parts affected; and for this reason, because from the obstruction, whether of the oxygen of the air, or blood, respiration is impeded, and in proportion to its extent, life or death is determined.

In describing the diseases of the chest, we shall not separate it into parts as is usually done, but endeavour by accepting it as a whole, to make it amenable to the unity and order which naturally belong to it. Any organ, or part of the chest, like any other 'organ' or 'part' of the body, may at times suffer from disease. It may be the heart as a whole, or any part of the 'heart,'—the pericardium, ventricles or valves, or it may be the lungs as a whole, or any single lobe, or the *pleura*, or the intercostal membrane,—intercostal muscles, *larynx*, *trachea*, or bronchial tubes. That we should, as medical practitioners, be capable of discriminating between all these nice distinctions and differences is true; but that it is necessary to map the different parts of the chest out and treat each part as a distinct entity, we confess our inability to discover its utility, particularly relating to the period of life now under consideration.

What part of the chest is it that is affected? Is it the *pleura*, substance of the lungs, or *bronchial tubes?* Shall we call it *pleurisy*, *acute*, *asthenic*, *sympathetic*, *bronchitis*, or *pneumonia?* Neither! no, neither! It is by no means necessary. We know that the disturbance lies within the chest, and that in whatever part it may be seated, there can be but one end to keep before us, and that is its removal. Whatever the remote cause or causes may be, the immediate or proximate cause is obstruction, and this we are called upon to remove.

Causes.—It is not generally assumed that the remote cause or causes of this disease can be traced so readily as many others at this early period of life. That very many infants are greatly predisposed to it however we know, and that even though it may be carefully guarded against, they are still liable to suffer. Children delicate in constitution, or begotten of parents, either of whom may have suffered from *pleurisy* or *pnuemonia*, and in whom there may be found some old pleural adhesions, are from these hereditary causes, all but in a chronic state of chest disease; and the greatest caution and care that may be bestowed, can seldom do more than obtain a brief respite. In such cases, every week that the child lives increases its chances of life, and enables it to outgrow the immediate difficulty, but which, in nineteen cases out of every twenty, will, under unfavourable circumstances, manifest itself in the future.

The immediate causes are, doubtless, damp and ill-ventilated dwellings, cold, deficient vital force, imperfect nutrition, &c. It has been, and is assumed, that dentition has a great deal to do with the sympathetic action of the dental and pneumogastric nerves, but this is one of the common errors that have no foundation in fact. That "dentition" is greatly retarded and often a severe complication, we readily admit; but this is an effect rather than the cause of the difficulty.

Diagnosis.—It is much easier to discover the exact locality of obstruction and detect the signs of disease in the adult than in the infant. We can learn nothing from the replies obtained through the nurse or mother by immediate questioning; and as regards the stethescope, it is little better than a toy in such cases,

and far more ornamental than useful; still there will be no room for doubt if we make use of our senses. The skin, hot and dry to the touch, will tell us of fever; the countenance denote the condition generally; the quick rapid pulse will speak of arterial excitement; the oppressed and hurried breathing of respiratory obstruction; and the uneasy restless slumbers, of the alternate recurrence of pain.

Treatment.—*Hygiene.*—What is the normal or physical condition of the infant? How is it being nourished? What are its surroundings, and in what way are the conditions of healthy life being carried out? In no case must these considerations be overlooked, nor have we any right to hope for success where they are. Medicine may remove the obstruction, but hygiene can alone prevent a relapse and assist nature to sustain life, until improved strength enables the body to overcome the remote or proximate difficulty.

Treatment.—*Medicine.*—Look well to the case. Examine the condition of the stomach and bowels, and remember that the removal of the complications will very often render any treatment for the actual disease unnecessary. Your case is "inflammation of the chest." Of what part say you? It matters nothing, is our reply. Note the following:—order an infusion of Balm (Mellissa Officinalis), about an ounce to the quart. Saturate a soft cotton cloth, and form it into a double compress sufficiently large to surround the whole of the chest, apply it moderately warm, fasten it loosely with a few stitches, wrap the child up comfortably warm, taking care to keep its head raised, and to allow it breathing room and a good supply of pure rarified or moderately warm air. This done, sweeten a little of the infusion with honey, and with a small spoon give, no matter how small the quantity nor how often, as much as the child can take. Acute cases, when free from any particular complications, will often yield to this simple treatment alone. In other and more severe attacks, cloths may be saturated in the infusion, and the whole body covered or enveloped in a warm blanket in the same way as the chest. In any and every case this should be the primary treatment. Now observe the condition of the stomach and bowels, for although it does not necessarily follow that these will be disarranged to any great extent, as they really are not in many acute attacks, nevertheless it is neces-

sary to look to them, as complications which nearly always accompany hereditary cases.

Should the motions be offensive or relaxed, prescribe the following:

℞ Compound powder of Leptandrin ..... One grain.

Mix in a little of the balm infusion, sweeten with honey, and give once in every twenty-four hours. The first dose will generally remove the offending matter and relieve the inflammatory symptoms, which, in many cases, are merely sympathetic.

In addition to this, it may be necessary to relieve the stomach. If so, prescribe with the balm infusion,—

℞ Syrup of Lobelia ..... Half drachm.

From two to four drops to be given with it as often as convenient, until relief is obtained.

One of the most convenient methods of giving the emetic is as follows:—

Mix a small teaspoonful of lobelia syrup in a half tablespoonful of infusion, sweeten with honey, and give as directed, *i.e.*, as freely as convenient until the effect is produced.

Of the power of these simple remedies in this and all other diseases not a word need be said to those who are fortunate enough to know them. There are few, however, among the people who have been redeemed in comparison to the millions still in ignorance, and fewer among the profession; nevertheless the numbers are rapidly increasing; nor is it too much to say, the last quarter of a century has been more prolific in promoting hygiene, sanitary and medical progress, than the same number of centuries that preceded it.

The difficulties that attend the best efforts of reformers are too well known; should any member of our profession, however, assume that *simples* possess no power, we shall be excused for asking him if the ox with all its varied and complicated structures, is not made from "simples;" and whether, if they can make an "ox," there may be found among the thousands which cover the surface of our earth medicinal simples with power sufficient to cure our diseases?

CHRONIC HYDROCEPHALUS *(Water in the Head.)*.

Description.—In considering this disease it will be necessary to

bear in mind that we are treating of that particular form of it which belongs peculiarly to early infancy, and which is more or less connected with a low condition of vitality, originating in intra-uterine disease, hence very many children are born with it; whilst others, from the immense size of the head, arising out of the large quantity of water within the membranes which envelope the brain are incapable of being born without undergoing the operation of craniotamy.

Causes.—Excess of serum, anæmic condition of the blood, and strumous diathesis of one or both the parents.

Diagnosis.—Disproportionate size of the head, divergence of the sutures, enlargement of the fontanelles, gradual expansion of the parietal, frontal and occipital bones, countenance inexpressive, sleep quiet, functions of the stomach and bowels regular, tongue clean, head heavy and immovable without aid, and general health apparently good.

Treatment.—*Hygiene.*—In this, as in all other diseases, the primary conditions of health must be attended to, and the predisposing and existing causes removed so far as possible. It is generally assumed that it is beyond the possibility of cure, as indeed it is in the majority of cases now under consideration. Presuming, however, that the child is otherwise well formed, we are not to rest satisfied with this. That *acute* hydrocephalus is amenable to medical treatment, we know by examples in our own practice, and that this is equally amenable in many cases we also know. Whether it may ever be completely removed it is not our purpose to argue; that it can be kept in abeyance however we are well satisfied.

Treatment.—*Medicine.*—It is a particular feature in "Hydrocephalus" that the child takes the breast well, and that the internal organs perform their functions regularly; at the same time that the serum within or between the membranes of the brain is in excess. How to remove this is now the consideration. Shall we perform paracentesis in the coronal suture? strap the head with adhesive plaster? apply blisters to the nape of the neck, and administer mercurial purgatives? No! for these have all been tried and found wanting;

indeed they rather increase than decrease the danger, and that because they interfere with the natural efforts which the body always makes to right itself under every difficulty.

Look well to the character of the disease, and determine the indications of cure by its peculiar character. This indeed is the great consideration at all times, and chronic cases can only be treated by chronic means.

Prescribe the following:—

℞ Rumex Hydrolapathum (Great Water Dock,—root, dry) ..... One ounce and a half.

Gradually simmer in three pints of water down to a quart, strain, let it cool, bottle, and protect from the air.

Use as follows:—

Prepare several soft cotton caps sufficiently easy to fit the head with moderate pressure. Saturate or wet one through thoroughly with sufficient of the decoction to fill the cloth without running over the child's face; fit it on, and over this place another cap prepared of oiled silk sufficently large to cover the other, and over these put another of thin cotton, which, if properly arranged, will cover the others without producing any disfigurement.

The caps thus prepared may be placed on every morning, with others to replace them in the same manner at night. It is for this reason that several of the first or inner will be necessary, as no cap should be put on a second time without being submitted to the wash. Twice in twenty-four hours will be sufficient to renew them.

The following medicine may now be prescribed for internal use:—

℞ Fluid Extract of Clivers (Galium Aparine) ..... One drachm.
Eupatorin..... Five grains.
Stillingin ..... Five grains.
Podophyllin ..... Six grains.

Mix well in a small mortar and add an equal part of distilled water, shake up, and give five drops three times a day in a little honey and water, or more or less in proportion to the age and strength of the child.

The only little matter to bear in mind is the necessity of avoiding severe catharsis, and two or three motions during the twenty-four hours will be quite sufficient. We have to remember that chronic strumous diathesis lies at the root of the disease, and that to remove the latter we must first undermine the former and enable nature to

come to the rescue; for, after all, the physician is nothing more than the servant of nature.

It will be necessary to attend to whatever complications may arise, and observe the effects of the treatment, which, for the satisfaction of the sceptical or doubtful, we may as well say is perfectly harmless. Indeed, this constitutes or forms the base of medicine as a practical science. Proper food in a condition of health, if used agreeably with the calls of nature, is harmless; taken in excess or improperly used, it becomes injurious. A piece of sir-loin of beef to man in health is an agent of *life;* but to a man suffering under disease, it may become an agent of death; it is equally so with medicine.

OPHTHALMIA PURULENTA *(Purulent Ophthalmia).*

Description.—This is a disease common to new-born infants, and in severe cases often tedious and difficult of cure. It generally manifests itself in the course of three or four days after the birth, or even earlier, in inflammation of the conjunctiva or lining of the eyelids, and swelling, with a discharge of thick purulent matter. There are several forms, or rather complications of the same disease, distinguished by names common to each, such as "Catarrhal Ophthalmia," "Pustular Ophthalmia," "Scrofulous or Strumous Ophthalmia," &c., &c.; but for our present, or indeed for any useful purpose, the name chosen is sufficient.

Causes.—Like most other diseases, it may arise from some remote or immediate cause or causes, the most common, however, are vulvular or vaginal prurigo, leucorrhœa, gonorrhœa, or inflammation and discharge of purulent matter from some one or more of the parts connected with gestation or parturition. That it is either the result of infection conveyed to the fœtus in *utero*, or to the conjunctiva in its passage through the os uteri, we are fully satisfied, although we are not prepared to say some of its milder forms may not originate in predisposition, immediately developed by exposure to cold.

Diagnosis.—Inflamed condition of the conjunctiva, swelling,

tumefaction, and eversion of the eyelids, discharge of thick purulent matter, extreme intolerance of light, difficulty of examination, partial or complete blindness, &c.

TREATMENT.—*Hygiene.*—Examine the circumstances which surround the child, and remove whatever interferes in any way with cleanliness, ventilation, and nutrition. In mild cases it will be sufficient to bathe the eyes three or four times daily with warm milk and water, wipe them dry, and if there is nothing objectionable, the mother or nurse may gently touch the eyelids at the same time with a little saliva from the mouth. This simple treatment, and the following medicine, seldom fail to remove or greatly modify the milder forms of the disease in a very few days; more severe cases, however, will often be found tedious and difficult of cure.

℞ Distilled water ..... Two drachms.
Podophyllin ..... Five grains.
Stillingin ..... Five grains.

Triturate in a mortar with a small quantity of sugar, gradually mix, put into a phial bottle, shake up, and give two drops four times a day, in a little infusion of clivers.

TREATMENT.—*Medicine.*—There can be no doubt whatever concerning the true character of the disease, for it is so distinctly marked that it is all but impossible to mistake it. There will be no necessity therefore for a nice examination, and any unnecessary interference for mere form sake, it will be prudent to avoid; but, presuming that the case now under consideration is severe in its character, although it will be necessary to resort to more active measures, we are to remember that we are dealing with life in its primary stage, and that however serious it may be, violent medication must be avoided. Time, patience, good management, and prudent treatment will do everything; violence and hurry a great deal more harm than good. Avoid leeches and *collyriums*, or eyewashes of nitrate of silver, acetate of lead, sulphate of zinc, &c. Assist nature and wait upon time; there is no other rational or safe treatment.

Look closely, as we have already said, to the circumstances that surround the child, and remember that although ophthalmia is a specific disease of the eyes, it is often complicated with a morbid condition of the blood, and that the complications growing out of this have to be taken into consideration.

In all cases, however mild or severe, the primary conditions of cure will depend upon CLEANLINESS, VENTILATION, and NUTRITION. If the child has a full healthy breast, and the mother or nurse is in good health, there will be in these circumstances alone many advantages. If on the contrary the mother suffers from debility, constipation, disease of the liver, or any other disease, there will be a corresponding diminution in the quality if not the quantity of the lacteal supply, and the best medical efforts may fail, not from their want of potency or misapplication, but from the neglect of the conditions upon which they depended for success. To those who have hitherto relied entirely upon drugging this may appear more extravagant than true. It cannot fail, however, to impress the minds of all thoughtful men and women, and if attended to by medical professors, will prove its value in their practice. In the majority of cases the treatment already recommended may be supplemented by the application of cold water compresses during the inflammatory or primary stage of the disease.

Saturate a piece of soft cotton lint with cold water, fold it, express the water out by pressure between the fingers, and place it directly over the eyes; cover with oiled silk to promote absorption; fasten on with a bandage; renew as often as it gets dry, and as soon as the swelling is reduced and the inflammatory symptoms have subsided, the following may be used as a lotion :—

℞ Infusion of Red-rose leaves..... Half ounce.
Tincture of Geranium Maculatum (Cranes-bill) Two drachms.

Mix, gently raise the lids, and with a small clean camel-hair brush or feather, pass it gently round the whole of the under surface three or four times a day.

The following medicine may now be given:—

℞ Fluid extract of Clivers ..... Two drachms.
Podophyllin ..... Six grains.
Stillingin ..... Five grains.

Triturate or well work the whole up in a mortar, and give from four to six drops four times a day, in a little simple syrup or honey and water.

It will be seen from the description of the disease that the secret of cure lies in gradually eliminating from the system the existing causes, and assisting nature through the medium of hygiene or the conditions of health to restore the affected parts to their normal

or natural state, and this she rarely or never fails to do where proper maternal and medical attention are available.

Just a word or two more, and we shall conclude our remarks. Let the medical attendant look well to the mother, for although "Ophthalmia" is not a specific blood disease, the cure will greatly depend upon her health during the period of lactation. Want of attention to this and hygienic measures do much to render the disease intractible, and prolong the difficulty of cure; and if to this the treatment ordinarily employed be superadded, there will be no difficulty in understanding why sloughing and loss of sight so often follow.

NOTE.—In addition to the Collyrium recommended, the following may be used with great advantage:—

℞ Pulverized Myrica Cerifera (powdered Bayberry) ... Two drachms.
Boiling water ..... Eight ounces.

Pour the water upon the powder, mix well, cover up, let it stand twenty-four hours, after which strain the liquid off clear, put it into a bottle, and use as a wash, morning, noon and night.

CYANOSIS *(Blue Disease).*

DESCRIPTION.—This is a disease connected with, or rather arising out of a malformation of the heart. It is known by the purple colour or blue appearance of the skin, particularly of the cheeks, lips, and finger nails, and cold unnatural feeling of the skin.

CAUSES.—Imperfect circulation, occasioned by an abnormal communication of arterial and venous blood, through an opening in the *foramen ovale*, situated between the right and left divisions of the heart.

DIAGNOSIS.—Colour of skin, unnatural coldness, difficult respiration, partial cessation of pulsation, syncope, convulsions, &c.

TREATMENT.—*Hygiene.*—In this, as in all other forms of disease, 'hygiene' should precede all other considerations, but more especially where medicine can do little or nothing, and where we can hold out no prospect of cure. Few children survive long in cases such as these, although we have known them do so for several years,

but life, under the most favourable conditions of the disease, has few redeeming points.

TREATMENT.—*Medicine.*—As far as regards the actual disease, we deem it proper to say at once that medicine can do nothing. The complications, however, which generally accompany it require attention, and to meet these, simple medicines should be always at hand.

To relieve the respiratory paroxysms, partial cessation of the pulsation, and convulsive exacerbations that may at any time occur, the following will be found useful:

℞ Anti-spasmodic Tincture..... Half drachm.
Oil of Spearmint .. .. Four drops.

Shake up, and give a single drop in a little honey and water every three hours during the day; and should it be necessary to relieve the bowels, as it generally is (for in cases of this kind there is a tendency to flatus and ropy irregular motions), add

℞ Tincture of Podophyllum Peltatum (American Mandrake), one drop, and give with the above.

These medicines may be combined as directed, or given separate. Should a simple stimulant only be necessary, the following will answer every purpose.

℞ Tincture of Ginger .... One drachm.
Oil of Cinnamon..... Four drops.

Mix and give two drops in a little hot sweet water every two or three hours.

We have already said that there is no prospect of cure in this disease, all our efforts therefore must be directed to the prevention and relief of symptoms, for only in proportion as this is done can we entertain any hope of life.

ICTERUS INFANTUM *(Infantile Jaundice or Yellow Gum).*

DESCRIPTION.—This disease, like Cyanosis, is known by the peculiar colour of the skin which puts on a yellow cast, particularly about the eyes, gums and mouth. It is peculiar to early infancy, and makes its appearance generally within two or three days after birth.

CAUSES.—Accumulated bile, carried into the fœtal circulation from biliary or hepatic disarrangement during gestation. We know no

other reason which we can give with anything like certainty; and the result of experience in every case that has come under our notice, warrants us in saying that we need look no further. We have but to remember that the child has been built up purely through the blood of the mother; and if we carefully examine her condition, particularly during the last few weeks, we shall rarely fail to find the true cause.

DIAGNOSIS.—Yellowness of the skin, particularly of the conjunctiva, mouth and gums, sluggish vitality, &c.

TREATMENT.—*Hygiene.*—It is a question with many members of the profession, whether this is in reality a disease. It is assumed to be simply a primary effort of life to throw off an excess of bile through the skin and other excretory organs, which, supposing we were to admit, would lead at once to the conclusion that more than three parts of the disturbances we call "diseases" are nothing more than this. That is to say, accumulated morbidity aroused into action under the vital efforts of the body, manifesting by the symptoms, the struggle between the forces more or less constantly engaged in the battle of life. We shall not stop to argue the question, however, but proceed at once to consider the treatment.

The cause, we have said, is "accumulated bile carried into the fœtal circulation from biliary or hepatic disarrangement during gestation." If we are asked how we know this, our reply is, from experience; and the application of proper medical treatment prior to the birth of the child would have removed it from both; for the child, with all its natural or complicated structures, is but a reflex of the mother, and which, prior to its birth, had no separate life. What should have been done, must be done now, and that by the same means. How, say you?

TREATMENT.—*Medicine.*—

℞ Leptandrin..... Five grains.
Podophyllin ..... Four grains
Ginger..... Ten grains.
Powdered Lump Sugar ..... One drachm.

Triturate or mix well until every part is well incorporated, and divide into fourteen powders, one of which is to be taken by the mother at 11 a.m., and another at 7 p.m. daily.

The following is also to be taken at bedtime every night:—

℞ Eupatorium Cannabinum (Hemp Agrimony Herb) .. Half ounce.
Powdered Ginger ..... Ten grains.

Infuse in a half pint of boiling water in a closed or covered jug, let it stand until sufficiently cool to drink; strain, sweeten with brown sugar, and prescribe as a drink at bedtime.

The purpose of this treatment will be readily understood. Had the same medicines been taken by the mother for a few weeks prior to parturition, the biliary obstruction or excess might have been prevented, or if already existing, removed. And here the wonderful provision of nature, and beauty of science, are manifested in their simplicity. Medicine, like food, acts by assimilation, and carried by the blood through the different organs of the body, is made the minister of life or death. It is through this law that the medicines prescribed, acting first upon the blood, are carried by the lacteal circulation into the mammary glands, and become the agents of health to both the mother and child. It is presumed, in the present case, that the child is being suckled from the breast; and seeing that it is treated medically through the mother, the question may be asked, if she is incapable of suckling the child, and it is being brought up by hand, how is it to be treated? Our reply is, exactly as any other child should be. Consider what the natural conditions are, and regulate the artificial so that they may approximate as near to them as possible. Bottle it, in fact, and let it have every attention possible, for the chances are against even healthy children, when the natural provision of the breast cannot be obtained; and since we cannot treat it medically through the mother, we must treat the child as follows:—

℞ Leptandrin ..... One grain.
Podophyllin ..... One grain.
Powdered Lump Sugar ..... Twelve grains.

Triturate or mix well, and divide into fourteen separate powders; one powder to be given at 11 a.m., and another at 4 p.m. in a few drops of simple syrup or honey and water.

The object, it will be seen, is the same whether the child be treated through the mother, or as now recommended, and the same results will follow in either case. It may be necessary to say that the yellowness of the skin will be superseded by the natural colour in the course of a few days, and that the medicine need not be given after the first

week, unless there are complications attending the case, which there often are. If such should be, of course they will need attention.

In concluding the present chapter, we beg to remind the reader that the diseases treated are those common to childhood during the first twelve months, and from which "one-third" of all that are born of the working classes die before the end of that brief period. That this unnecessary sacrifice need not be we are well assured from long practical experience, and also from the exceptions found in families who, with more knowledge of nature, resort to the safe and simple treatment with which they have become familiarized through our many works and public labours: nor need we remind the members of our profession that *dead children* can never become living *men* and *women*, and that every child saved, may, in after life, be of advantage even to ourselves. It is false economy to encourage ignorance of the laws of health, and the knowledge and application of simple domestic medicines,—an economy equally injurious to our profession and society, and one that we should endeavour by every possible means to remove, and which will be found advantages in proportion to the progress gradually made.*

* For information concerning Midwifery and its Management, Diseases of Pregnancy, Difficulties of Parturition, the immediate necessities of children, &c., see our Work on Midwifery, dedicated to the Mothers and Midwives of England. Illustrated with wood-cuts. Price 2s. 6d.

Chapter IX.

DISEASES OF INFANCY.

"But for as much as therapeutics ought to be the very end and climax of medical knowledge, it seems as absurd to despise it as it would be in the farmer to expend labour in digging and tilling the soil, and then neglect to gather in the harvest; or as it would be in the hard-working man of business to toil all day and night, and then neglect to collect in his accounts, and secure proper remuneration for his labours. The only basis of therapeutical knowledge, then, is experience. When this truth is ignored, or when men affecting to be rational beings despise the word 'empirical,' and set to work to spin out of their brain that which they ought to get from the use of their eyes and fingers, then confusion and loss of life ensue, barely compensated by the pompous and self-satisfied phraseology in which the rationalist indulges."

The above is copied from the *Medical Times* of January 6th, 1861, and we introduce it with the object of letting the public and profession see the position in which they are placed.

That the majority of those now practicing medicine within the pale of the profession know little about it and care less, would appear at first sight too absurd for utterance, and yet it is so. The practice of curing, by which it is presumed they live, and upon the success of which their position in life is secured, is of the least importance. "Any old woman or any fool, they say, can learn to compound doses for colic, and to palaver with mothers in the nursery. Therefore (they seem to argue,) what the fool can do so easily is beyond the notice of the philosopher." We are not responsible for these statements be it remembered, but whilst we give them upon the authority of the "*Medical Times*," we at the same time fully endorse every word; and if it be asked why we 'endorse' them, our reply is, "the want of a controlling power, created by the spread of intelligence and exercised by public opinion, has given the profession no stimulus. It has been assumed that the mystic rites practiced within the circle, and the mysterious ceremonies which preceded the introduction of the licensed man of physic to the public, were of a character so profound,

that it was presumption in ordinary mortals to question their infallibility. "Yet there have not been wanting," said the astute John Wesley, "from time to time some lovers of mankind who have endeavoured to reduce physic to its ancient standard—who have laboured to explode it out of its fine spun theories, and make it a plain intelligible thing as it was in the beginning, having no more mystery in it than this—such a medicine removes such a pain, so that every man of common sense, unless in some rare case, may prescribe either for himself or his neighbour, and be secure from doing harm even where he can do no good."

That John Wesley was one of the "lovers of mankind" who desired to raise medicine to a more practical and useful condition there can be no doubt, as many others have done, but that he failed is equally certain, and that the best efforts of individuals must continue to fail is certain, unless society can be awakened to a sense of its condition, and be induced to take the work into its own hands. That it will be done we have no doubt whatever, and not until it is, can the profession possibly realise the loss of its prestige. We are not anticipating encouragement from those whose training has placed them beyond the reach of hope, nor even from the public until we can enforce it. Every day, however, makes the work easier, and brings more powerful minds to the rescue. We teach new ideas to a new age, whose necessities have outgrown the provisions of the past, and are not so foolish as to complain of the tardiness of its movements.

From these remarks, and our views regarding the "Science and Practice of Medicine," the reader will find the clue which cannot fail to lead him into the haven of safety. Nature alone is the foundation upon which he is invited to stand, and with his feet once fixed there, whatever his position in life, whether learned or simple, rich or poor, professional or non-professional, he cannot fail to escape the thousand evils that ever track the footsteps of the ignorant, and secure the blessings that wait upon those who follow where light and reason lead.

2ND PERIOD.—FROM THE END OF FIRST TWELVE CALENDAR MONTHS TO THE EIGHTH OR NINTH YEAR.

It will not be presumed that the line which separates the 'first

period' of life from the 'second' is so distinctly marked that the diseases common to either may not diverge or run into each other. The fact is, that the same morbid poison produces at different periods different forms of disease; and whilst some act upon all "periods" of life, others take no effect after a certain age.

CANCRUM ORIS *(Ulceration of the Mouth).*

Description.—If the reader will turn to page 121 and note our remarks, he will see that we have there treated the primary type or form of disease now under consideration. "Cancrum Oris" in its simple or uncomplicated character is no other than "apthæ" in a virulent form developed under 'more' distressing circumstances. It is not a primary disease, but results in the majority of cases from the improper treatment of some other form of disease arising out of poisonous drugs commonly dispensed by ordinary drugmen, or administered *secundum artem* under the authority of modern medical science. It does not attack children at the breast, nor is it confined to any particular age, but may be met with at any period after eighteen or twenty months, up to that of eight or nine years.

Causes.—It is assumed by medical writers generally, to result from some peculiarity of constitution connected in one way or other with dentition, but beyond this everything appears uncertain. The disease was unknown until near the middle of the seventeenth century, and not then in this country. "The worst species of this complaint that I have happened to see was during the second period of dentition, when a child was shedding a number of teeth together, leaving the rotten stumps behind, which had been neglected to be drawn out."* The first teeth having been destroyed and the blood corrupted, the second as a consequence were more or less in the same horrible condition, and to this all but universal treatment we are satisfied the complaint must be attributed; and that it is so we need have no misgivings whatever, for wherever we look for the history of

*Treatise on the *Diseases of Children*, by Michael Underwood, M.D. Ninth Edition, with notes by *Marshall Hall*, M.D., F.R.S., London, 1835.

the disease, or wherever we turn, we cannot fail to find our opinions confirmed.

"The danger of ulceration of the mouth in children is enhanced, or a new 'danger' created, when mercury is intemperately given during the progress of these febrile complaints, so indiscreetly exhibited during recovery therefrom; or indeed while the system labours under any disease of low vital manifestation." * * * We have seen the disease brought on oftener by the incautious administration of a dose of calomel given as a purgative to a feeble child just recovering from scarlatina and measles, than as the result of mercurials administered during these diseases." * * Dr. Copeland says: "The disease appears to have been first noticed by C. Battus, a physician of Amsterdam, as early as 1620; and Vander Woorde soon afterwards designated it by the name 'water-kanker.' Arnold Boot described it 1649, and also Van Kingh; the latter called it 'scorbutic cancer.'" Now if we compare these dates with those quoted in the notes, and remember that calomel was introduced and freely used on the Continent at least a hundred years before it found its way into the practice of this country, we shall obtain the clue with which to unravel the secret. We say then, most unequivocally, that we know of no other remote or proximate cause for the malignant form of this disease but calomel.*

Diagnosis.—Offensive breath, ulceration of the inner side or sides of the mouth and cheeks, extending to the lips, spongy condition of the gums, &c. In its milder forms it may not extend further than the lips and corners of the mouth, but in the malignant, "*cancrum oris mercuriale*," it is attended with ptyalism, swelling and ulceration, which often set up a sloughing and destructive process.

Treatment.—*Hygiene.*—Examine carefully into the conditions that surround the child, and endeavour to trace the origin of the disease. Note its age, look carefully to the teeth, and extract whatever stumps are loose or rotten.

Treatment.—*Medicine.*—If the disease is of an apthous or mild

*Diseases of Children. *Evanson and Maunsell, Dublin*, 1842.

character, turn to pages 123 and 4, and give the same medicine internally, simply increasing it at the rate of one drop extra each dose for every year of the child's age; that is to say, if under the first year, as there prescribed, "six drops" four times a day; if over one year and under two, seven drops; if over two years and under three, eight drops, &c., &c. Do this, use the same lotion or wash, and nothing more will be needed if the disease is of a simple character, as it is sure to be where it has not been caused by the improper treatment of one or other of the diseases so common to infancy. Presuming, however, that it is of the malignant type, it will then be necessary to adopt more active measures.

Prepare a lotion or wash as follows:—

℞ Myrica Cerifera (Bayberry Bark, crushed)..... One ounce.
Tincture of Cranesbill (Geranium Maculatum) Half ounce.

Gently boil or simmer the former in a pint and a half of water down to a pint. Strain, and when cold, add the latter. The mouth, gums, ulcers, and parts affected should be well washed with warm milk and water three times a day, after which use the lotion.

The following medicine should be given:—

℞ Tincture of Cranesbill (Geranium Maculatum) ..... Two drachms.
Myricin ..... Five grains.
Podophyllin ..... Five grains.

Triturate or mix in a glass or small mortar, and give from "four" to five, six, seven, eight, nine or ten drops, according to age, four times a day, in a little simple syrup.

In addition to the remedies already prescribed, give the following as an emetic:—

℞ Lobelia Syrup ..... One drachm.

Give from ten to fifteen or twenty drops, every quarter hour, in a little warm water, sweetened. One emetic is generally sufficient to effect a cure, with the medicines prescribed.

There is nothing more to add as far as regards remedial measures. We cannot conclude, however, without saying to mothers and fathers, "as you value your own happiness and health of your families, avoid the poisonous drugs of the shops; and to all who practise medicine without regard to sect or position, we say, "as you value your own credit, love your profession and desire to honour it, come out from

the ranks of those who now disgrace it, and embrace the purer, safer practice, which the progress of the age is rapidly working out."

DENTITION *(permanent set).*

Description.—If we turn to pages 127, 8, 9 and 10, and note what is there written, we shall better understand what we now read; nor will it require any great amount of common sense to see that sound teeth can only spring from sound bodies. There are exceptions to this it is true, but they do not ignore the rule. Presuming then that the child is begotten of healthy parents, and has received proper attention, it will have passed safely through the first period of dentition, and now at the age of from twelve to sixteen or at most eighteen months, its milk or primary teeth will be complete.

We have stated that the teeth may be traced in the fœtus as early as the third or fourth month; the same may be also stated of the second set, that is to say, when the first are all perfect, the permanent teeth will soon after have considerably advanced, and whilst the former may be counted above the gums, the latter are all ready below, waiting only their removal or shedding. Just previous to this, then, the teeth will be represented as follows:—

First or deciduous teeth	20
Permanent teeth	28
	48

In addition to these there are the four *dentes sapientiæ*, or wisdom teeth, which, when complete much later in life, make the permanent set into thirty-two.

The first set begin to fall out about the eighth year, and the second or new set is completed in the course of from five to six years after, that is to say, somewhere near the thirteenth or fourteenth year; sometimes earlier, and at other times later; the "wisdom teeth" are not cut, however, until about the eighteenth year, and in some cases as late as twenty-one, or even later than this.

There is seldom much difficulty in the process of cutting the permanent or second teeth, and that simply because the child having escaped with its life through the diseases which retarded or prevented

the growth of the first, its system is in a condition to do what it could not then do, and we say once for all to parents, "suffer no metallic or mineral poisons of any kind to pass into your children's stomachs, attend to the conditions of health, and when it is necessary to give medicine, let it be organic, and like food, just as simple. Do this, and the difficulties of dentition will be removed or beyond the reach of danger."*

It is not to be presumed that the chronic state of dental disease, now all but universal, can be removed in a single generation; but we say fearlessly to those whose teeth are diseased, whether through transmission from parents, fashionable drugging, or from both, "if you would avoid these evils in your children, and teach them as they advance to manhood and womanhood to do the same, that so far as they are concerned, their blood will be in a purer condition, and as a result, whatever children are born to them will have better and more enduring teeth." That the 'teeth' were intended to last as long as the body there can be no doubt from the nature of

*The following very curious fact is well worthy the consideration of all, but particularly the physiologist and physician. Quicksilver, which is the base of all our mercurial preparations, and sugar were gradually introduced into this country about the same time; the one as medicine, the other as food, and excited a great deal of division and opposition, particularly amongst medical men. What the reasons for this were may be easily seen, if we consider the effects which followed.

From some cause or causes the teeth began to decay soon afterwards, and as medicine was practised under the disguise of symbols, which none but the initiated were presumed to understand, it was impossible for the public to form any idea of the real cause of the mischief, it was therefore put down to "sugar." "Happily for the interests of sugar, physicians then, as now, were not unanimous, and whilst some violently abused it, others became its powerful advocates. * * Dr. Willis, not content with the general aspersion directed against the acidity of its products, accuses it roundly of contributing to the existence of scurvy, when as modern experience demonstrates, it possesses a quality the very reverse of this. Dr. Slare, on the contrary, says, "if any one would be so curious as to inquire more particularly into the state of my health, and demand of me as a living evidence to give a faithful account of 'sugar' by my own experience, and how it affected me, I shall then bring a third case, whereas I intended to represent only two. I do declare that I cannot charge 'sugar' with any one ail or injury that it ever brought upon me. * * * I have lived to bury above four score fellows of the College of Physicians that were my seniors, since my first admission, and a vast number that were my juniors; many of these were bitter enemies to the delicious and curious preparation, fine sugar."

Epsom, December 31, 1714.

the material of which they are composed and the work which they are meant to do; and that until within the last three or four centuries they did so endure, we have ample and unmistakable proof. "Ah! but it is a result of civilization," say some of our sapient professors, "our children eat a great deal too much salt and sugar, and drink hot liquids constantly, the whole of which greatly tend to induce a bad state of the teeth." That these are the conclusions generally drawn we very well know, and mothers, fathers, medical practitioners and the public are satisfied, and inquire no further.

The real cause or causes of the mischief are scarcely ever thought of, and the result is, that which is not only harmless but beneficial has to bear the blame. To all, therefore, who may read our remarks we say, the principal cause will be found in the constant use of the abominable drugs ignorantly pronounced to be medicines, and the decay of the teeth, nothing more than a physio-dental protest against their employment.

It will be seen from the remarks quoted, that 'sugar' up to that date was a bone of contention amongst medical men, and in order to prove its innocuous qualities and place its dental virtues beyond dispute, Dr. Slare says, "I have made use of dried sugar, in powder, to clean my teeth; and by rubbing it into my gums to cure them when sore and swelled; but this happened seldom, unless I neglected the use of sugar for many months."

We have been thus particular in considering the subject of dentition, and fancy it is all but impossible for any rational man or woman to escape the conviction that must follow. The teeth, like every other part, depend for healthy vitality upon the blood, and in proportion as this is supplied and the body built up, they are sustained and continued. They can not have a separate life, nor is it any more possible to maintain them in health when the blood is corrupted, than it is for the body to maintain its purity whilst the pabulum or fountain is diseased. It is a subject of immense importance. LET US LOOK TO IT. * *

* * It might be presumed that enough had been already said upon "drugging," but we cannot pass the subject over without directing special attention to the preparations universally dispensed by chemists, pharmacists, druggists, and the whole host of the same genus that swarm in our own cities, towns and villages, under the name of "teething powders." The delusion,

RACHITIS *(Rickets).*

Description.—There is nothing more instructive than to trace the history of the different types or forms of disease, and to note their change of character with the change of customs and habits. Rickets, for instance, which is a deficiency of earthy material in the osseous or bony structure, was not known in England until the beginning of the seventeenth century. "It was noticed about the year 1628, and is said to have taken place upon the increase of manufactures, when people left the villages and husbandry to settle in large manufacturing towns, where they wanted the exercise and pure air which they enjoyed in their former situations and employments; * and there is every reason to accept this statement as correct for we have but to remember that without a proper supply of air it is impossible to arterialise the blood—that in fact the 'blood' being deficient of the calcareous matters necessary to form bone, it is impossible it can deposit it. It is for this reason rickety children cut their teeth late and with such difficulty.

Causes.—Remotely; general debility of the father or mother, or both; confinement in hot ill-ventilated rooms, workshops and factories, and hot sloppy nutrition during gestation; proximately; want of

fostered by those who thrive upon it is, that nearly all the diseases under which children labour are in some way or other connected with 'teething,' the consequence is that there is an immense demand for them, and as the active principle lying at their base, without a single exception, consists more or less of calomel, the injury, but more particularly to the teeth, surpasses anything that language can describe. They are sold to the poor in small powders at three-halfpence each, and in packets of four for sixpence or eight for a shilling to the better sort of the working-people and middle classes. That such a terrible delusion could exist, would all but surpass belief, did we not know how difficult it is to remove error when combined with precedence, custom and fashion. In order to meet and overcome the difficulty, however, there is but one way, and that is by teaching new ideas. Errors must yield to truth wherever the latter can force its way, and that there shall be no longer any excuse for the use of this "poison," we recommend all who have shops for the sale of harmless medicines to keep "teething powders" prepared from one or more of the formulæ found in the appendix at the end of this work. For which see Index, "Teething Powder."

* Michael Underwood, M.D. Treatise on the Diseases of Children.

attention, vital deficiency, bad nursing, imperfect lactation, bad ventilation, confinement, &c., &c.

Diagnosis.—General debility, dislike to motion, feeble pulse, flabbiness of the muscles, swelling and enlargement of the abdomen, wrists, ankle bones and sternum, softening and deformity of the *tibia* and *fibula* or bones of the legs, difficult and late dentition, decay of the teeth, &c.

Treatment.—*Hygiene.*—Consider the causes which have induced the disease, and remember that whatever they are, it will be necessary to remove them before we can rationally hope for any improvement. What is the age of the child? is it one year or two? for it is generally between these periods that the disease is noticed; not that it was absent before this; but until the time arrived when the child should have been strong enough to walk it escaped notice, and now we see what the matter is. "We always knew it was delicate, but did not think it necessary to have any advice beyond what the druggist gave us." Just the old story that we have heard hundreds of times, and one which is being continually told. The mother and father knew but little concerning the management of the child, the nurse less; and as the drugman was interested only in selling his drugs, he was not expected to know; of course he is not responsible, and between them the child is made a cripple and butt in after life for children who have fortunately escaped the affliction. Here the child is then with its legs crooked, teeth rotting out almost as soon as they came, and altogether a delicate precocious half made up little creature. Shall we save it or let it go? "Oh, save it! save it!" we think we hear some poor loving mother and equally loving father say, around whose hearts the instinct of nature fondly clings, and whose love is as strong as their judgment is weak. "Save it!" yes, this is the physician's mission; he is bound by the sacredness of his calling to do his best under every circumstance. To him human life and the honour of his profession are all in all. Come, then, let us see if we can find the remedy.

Treatment.—*Medicine.*—First,—can the child breathe freely? let us satisfy ourselves of this; for if it can, we may fairly accept

it as evidence in our favour. Second,—What is the state of its stomach? does it take its food well? If we say there is nothing to complain of, this too will be favourable; and the inference to be drawn is that the disease will be found in the spleen and mesentery. Note these points, for upon them and the treatment the chances of cure depend. It is not uncommon to see men, particularly in our manufacturing towns, comparatively robust in the upper part of their bodies, but stunted and deformed in the lower; that is to say, with their legs and thighs twisted into a couple of semicircles. How is this? the child was rickety, but the lungs and stomach being sound it contrived to live over the first two years, and at length was able to crawl to the door, where, in spite of untoward circumstances, it got a little extra air, through which it gradually acquired strength; and every day improved in body, but the legs never recovered their natural shape. Here then it is: the child succeeded at length in doing what ought to have been done for it, and became, by accident, the man that we see. There is no disease known where nature is so ready to do so much for us; and all she asks is that we should do our share of the work. Good nursing daily in the open air must be had, and in addition to this, cold water baths in the morning; if sea water can be obtained it will be all the better. We have assumed that the lungs and stomach are sound, and upon this assumption we prescribe the following medicine:—

℞ Leptandrin ..... Ten grains.
Xanthoxylin ..... Ten grains.
Hydrastin ..... Five grains.
Fluid Extract of Clivers (Galium Aparine) ..... Two drachms.

Triturate or mix well in a small mortar, shake up, and give four drops three times a day, in a little simple syrup.

Should it be necessary to relieve the bowels a little more freely (although it rarely is), give the following:—

℞ Compound Powder of Leptandrin ..... One grain.

Triturate or mix with a little finely powdered sugar, and give every third or fourth day.

It may be necessary, if the stomach should not be in a condition to do its work, to give an emetic. In that case prescribe the following:—

℞ Syrup of Lobelia ..... One drachm.
Fluid extract of Boneset (Eupatorium Perfoliatum) .. Half drachm.

Mix in an equal quantity of warm water, and give from six to eight drops every ten minutes until the stomach is vomited freely.

We have but to remember that the stomach must be in a condition to prepare the food, and the lungs to arterialise the blood, in order to see exactly what is to be done.

But will the legs ever become straight? methinks we hear some timid mother ask. Our reply is yes! do your duty, and nature will do hers; she will even straighten the legs if they are not too far gone, and this she manages by depositing the whole of the future osseous or bony matter on the concave side of the bone; and as if to make amends for her former impotence, doubles her labours, and makes the weakest part the strongest.

We are not to assume that there are no cases where mechanical appliances are unnecessary, nor are we to neglect them where they are; the majority, however, if attended to as directed, between the first and second year, will generally do better without any other aid than that to which we have directed attention, and our work, we feel assured, will accomplish the double purpose of instructing the non-professional in what is right, and enabling him to co-operate with the medical attendant when help may be needed. As medicine now is, if the physician knows little, the public knows less. Enlighten the latter, the former must improve; and we say, fearless of confutation, that it is a thousand times better to deal even medically with an enlightened than an ignorant people.

TABES MESENTERICA *(Mesenteric Disease).*

Description.—This disease is common to children, particularly in our manufacturing districts, and is similar in some respects to the last, although it does not, like it, belong to the bones. It is connected immediately with the mesentery, which is the broad fold of serous membrane uniting or attaching the intestines to the back of the abdomen; and from the fact of its being a disease connected with strumous or scrofulous constitutions, it is generally considered to belong to the same class. It has its seat in the mesenteric glands, hence its name.

Causes.—It may be connected remotely with a scrofulous germ, with secondary or tertiary syphilis, or it may have its origin in "tuberculosis" of one or both the parents. That it is a specific disease of the blood we very well know, and whether it manifests itself in the 'glands' of the neck or in the mesenteric 'glands,' it does not alter the fact. Whatever causes may have operated at any time to induce this or any other disease of a similar character in one or both the parents, may, in its mildest form, induce a predisposition to the disease in their children, which unfavourable circumstances will be almost certain to develope. The same or similar causes that induce the numerous forms of low vitality out of which other disease arises induce this also, the difference being simply in predisposition. A case in point. Take two boys, both predisposed, at the same age to the same disease. Send one into an office, and seat him at the desk eight or ten hours daily, or to the mill, or any kind of sedentary employment, and the chances are that he will suffer from scrofula or tubercular disease, which will gradually undermine the constitution and prematurely destroy him. Send the other to sea in a first-rate ship of war, where he will be well disciplined and supplied with the conditions belonging to the service; let him in fact have three or four years of it, and at the end of that time compare the two. The former will be either dead and buried; or, if he should be alive, at best but in a delicate state; whilst the latter will present all the characteristics of a jolly jack tar. Presuming now that they each follow the same course, marry and become fathers, the chances are that the disease will be completely absorbed, exhausted, or worn out in the latter, and that his children will, if they follow their father's profession, receive renewed lives; whilst the children of the former will inherit in a greater degree the disease of their father, and die in infancy. From this general result of natural causes we see reflected, as in a glass, not the remote causes of this disease only, but of many others; nor are we to presume that "mesenteric disease" is confined wholly to the causes enumerated. Here, for instance, is a strong healthy boy attacked with measles, scarlatina, typhoid fever, or one or other of the many diseases so common to childhood; he is treated without regard to first principles; that is to say, the morbific poison instead of being eliminated through the natural channels is merely changed in combination with a poisonous chemical agent, which induce

a low state of vitality developed in after life, into some one of the tubucular or glandular diseases now so common. The blood cannot fail to convey its qualities to the *germ*, and the result is that whatever children are begotten must become partakers, more or less, of the same evil. We have been particular in explaining the remote causes of this disease, because we know of no proximate or immediate 'causes' capable of inducing it apart from these.

Diagnosis.—Emaciation of the body from *atrophy* or *marasmus*, enlargement of the abdomen and mesenteric glands, swelling and hardening of the abdomen, wasting of the limbs, pallid and contracted expression, offensive motions, mixed with *pus* from suppuration, &c., &c.

Treatment.—*Hygiene.*—How old is the child? Is it one year, two, four, six, eight or ten? for it may be developed at any age between these; not that it is of any moment as regards the application of hygiene, which should receive our constant care and attention at all times, but because the conditions applicable to the first or second years, may not be to the later periods. Upon no consideration, however, should the child be allowed to sleep in an ill-ventilated apartment. Out-door exercise, cleanliness, cold bathing mornings, and good wholesome food are all great essentials, and will do their part in effecting the cure if the parents are in a condition to command judicious medical treatment, but the old system of drugging will do a deal more harm than good.

Treatment.—*Medicine.*—The first thing to consider is the progress which the disease has made, for we must remember that it passes through different stages, similar to tubercular or pulmonary disease, scrofula, synovitis, &c., &c.; not that this need interfere with our treatment, for after all it is the blood we are called to treat; and although we might, if we followed in the footsteps of those who consider its different stages as distinct, and treat each under different heads, write "an infinite deal of nothing," we could not effect any more practical good. Change the condition of the blood through the application of hygiene and medicine, and the disease will cure itself.

℞ Fluid Extract of Poke-root (Phytolacca Decandra) ... Two drachms.
Xanthoxylin ..... Five grains.
Podophyllin ..... Five grains.
Stillingin..... Five grains.

Triturate or mix well in a mortar, and give in the following:—

℞ Fumitary (Herb, dry, Fumaria) ..... Half ounce.
Tincture of Sweet Flag (Calamus Aromaticus) Two drachms.

Infuse the herb in a half pint of boiling water, let it cool, strain, express through a coarse linen cloth, put into a half pint bottle, add the "tincture," and give as follows:—to a child between the first and second year four drops of the first preparation to a quarter teaspoonful of the second, in an equal quantity of honey and water, or simple syrup, four times a day; to a child three years of age and under four, add six drops of the former preparation to half a teaspoonful of the latter, and so on in proportion to age.

Should the stomach require attention, give an emetic. See page 164, and if it should be necessary to act occasionally upon the bowels a little more freely, give the following:—

℞ Compound Powder of Leptandrin ..... One grain.

Triturate with a little sugar, and give more or less as necessary in roast apple. About once or twice during the week will possibly be sufficient.

There is nothing more necessary in the treatment of this disease than to follow out the directions given; nor can we fail if we consider the case and master it in its entirety, to see the work necessary to be done. The blood, which is the great depositor in the bank of life, must be supplied with healthy material, and the effete worn-out matter removed before the system can resuscitate itself.

It will be well if any desire for drink is manifested, to give apple tea. Prepare as follows:—

Skin and cut up a good sized ripe apple in thin slices, put into a pint jug, fill with boiling water, sweeten with lump sugar, and give whenever necessary.

CHOLERAIC DIARRHŒA *(Cholera Infantum).*

Description.—Diarrhœa, or a relaxed condition of the bowels, is not confined to any period of life. It assumes different forms, agreeing with the age and constitution of the person attacked, and in proportion to the virulence of the causes which operate at particular seasons, its type and character are determined. The ordinary diarr-

hœa so common to children differs from this in the violence of its action, and in the fact that it is most prevalent towards the decline of summer or in the early part of autumn.

Causes.—Like the generality of diseases to which children are liable, it is often attributed to dentition; but the folly of this will be evident if we remember that it assumes occasionally an endemic or even epidemic character, and attacks indiscriminately children with, and children without teeth. It is to other causes, therefore, that we must look before we can hope to understand it. What is cholera, and why has it received the name? The answer is found in its root, 'choler,' signifying 'bilious' disease, implicating more or less the stomach and whole of the viscera. A 'choleric' man is excitable, passionate, irritable, peevish and ill humoured, for which he can give no reason; and often in his calmer moments regrets the acts committed during his excitement. That this is due to the excess or overflow of bile, and its effects upon the nervous system we know from the relief obtained by medication; and although we cannot confound it with the "choleraic diarrhœa" of infancy, we cannot help fancying there is a closer connection between them that might at first be supposed. Anything that exhausts the system, particularly if it is predisposed to hepatic disarrangement, will be likely to induce this disease; hence the periods of attack in summer and autumn. But it may be asked in what way "cholera infantum" can be reconciled with 'choler' in the adult; our reply is, "in the latter the sensitive nerves are in full activity, and the excess of bile and chylopedic acid acting upon the brain through the vascular and nervous systems, exhaust themselves in irritation, excitability, passion, &c. The nervous system of the infant, on the contrary, not being fully developed, the effects are manifested in the stomach and intestinal canal; hence the vomiting, diarrhœa and prostration which accompany the invasion and attack. It is this that distinguishes "cholera infantum" from ordinary "diarrhœa," and the want of this little knowledge has led many medical writers to confound one with the other.

Diagnosis.—Prostration, countenance pale, dark appearance of the lips, eyes turned or drawn upward and partially closed, pulse

slow and irregular, vomiting and incessant purging, or passing of watery, white, yellow, clay-coloured, or green curdled motions, abdomen tense, skin cold, &c.

TREATMENT.—*Hygiene.*—There are cases where it is of little use to think of 'hygiene,' and this is one of them; for the disease is often so rapid in its action, that nothing but active treatment is of any avail. At certain periods "choleraic diarrhœa" presents a higher per centage in the returns of the Registrar General than any other disease, and whenever we are called to act upon emergencies there can be no room for any thought beyond the present. We must first save the life, and afterwards enforce hygienic measures.

TREATMENT.—*Medicine.*—Is the disease ordinary 'diarrhœa' or 'choleraic diarrhœa?' A practical physician will detect the difference at once; but if there should be any doubt, turn to page 136, and read *description*, *diagnosis* and *treatment*. In the former case you have no immediate danger, seldom any vomiting, and no rapid prostration. The one is gradual, the other sudden. There is, it is true, 'diarrhœa' in both, but the "choleraic" or bilious irritation and vomiting are not there; and this it is that makes the difference. It will be readily seen that whilst the two forms of disease have some points in common, that in others they are distinct and differ just as widely as others. That these trifles are often overlooked, not known or considered of little importance we very well know, and yet it is upon these that our success in curing must mainly depend. We are called, for instance, to a child, no matter whether of one year, two, or three: notice its condition and the stage into which the disease has passed. If the attack is recent, and the strength has not been exhausted by the efforts of nature to rid the system of its incumbrance, prescribe the following:—

℞ Glechoma Hyderacca (Ground Ivy Herb, dry) ..... Half ounce.
Lobelia Syrup ..... Half drachm.
Antispasmodic Tincture..... Five drops.

Infuse the herb in a full half-pint, or rather more, of boiling water; sweeten with lump sugar, and give warm by the fire in teaspoonful doses as freely as possible; and now after having prepared the stomach, put the other two ingredients into a teacup, add three tablespoonfuls of the 'simple herb infusion,' sweeten with honey, and give in teaspoonful doses every ten minutes, until the whole is taken.

This, which is an emetic, will induce a peristaltic action in the duodenum, and chylopedic viscera; and the stomach, which is the centre of sympathies, will eject the excess of bile and relieve the system at once. Now this is the first thing to be done in 'choleraic diarrhœa,' and if it is neglected the chances are that the body will exhaust itself in fruitless efforts to do for itself what we are called upon to do for it. We shall presume, then, that the child has been kept warm by the fire and its stomach "vomited." Our next consideration is to relieve the intestinal canal, and to do this we prescribe the following:—

℞ Compound Powder of Leptandrin ..... One grain.
Give in a little of the same simple infusion.

There will rarely be anything more needed to effect the cure except to continue the 'infusion,' keep the child in a warm well ventilated room, and let it have careful attention and proper diet; and this latter consideration is of equal importance with medication. Indeed it forms one of the great branches of healing.

A half teaspoonful of the digestive food, or prepared *ulmus fulva*, may be mixed in a wineglassful of new milk, as follows:—

Put the powder into a teacup and pour on the milk slowly, stirring the whole at the same time, and give as ordinary food.

And here we take the opportunity to remind the reader that thousands of children are lost for the want of a little knowledge on the part of parents, and from the administration of the abominable drugs so commonly dispensed. Observe: the medicine prescribed is presumed to be the quantity for a child twelve or fourteen months old, and may be increased or decreased according to age. It will be also proper to bear in mind, in case the disease has passed through the first and second stages, and you are called to treat it when the system is exhausted, that it will be necessary to pursue a different course. You must economise carefully the remaining vitality. Do not give an emetic, for you cannot afford to increase the exhaustion. Whatever bile remains in the *primæ viæ* must remain. SAVE THE LIFE just as it is, and trust to nature and time.

℞ Sanguisorba Officinalis (Burnet Herb, dry) ..... Half ounce.
Tincture of Geranium Maculatum (Crane's Bill) ... One drachm.

Infuse the herb in a half-pint of boiling water, sweeten with honey, add the tincture, and give as freely as possible in half teaspoonful or teaspoonful doses, or even in drops if more cannot be given.

Do not sit hesitating and doubting, nor listening to the croaking of foolish people, but do your work; and remember that the medicine is perfectly harmless, and that it has a power surpassing anything that can be conceived by the inexperienced and prejudiced. Once again we say note the modes of treatment, and satisfy yourself with a reason for what you do. In the first stage, assist nature to eject the morbidity, gave her the bias, and she will readily respond to your labours. In the last, seize the exhausted vitality and diligently watch until it is sufficiently resuscitated to take its part in the work.

It may be necessary to remark that the medicine prescribed in the second case may be used with equal advantage in the first, if the 'diarrhœa' continues, and it may be equally necessary to give the emetic and medicine prescribed in the first, a second or third time if the case requires it. We would just invite the student to "read" and compare the present disease with "tormina," page 125, and "diarrhœa," page 136. By this means he will be enabled to distinguish their peculiarities, and clearly comprehend the harmony, simplicity, and unity of disease and its remedies. Nature is the great physician, and in proportion as we observe and faithfully fulfil her behests will our success be.

PERTUSSIS *(Whooping Cough).*

Description.—This is a disease well known to all classes and common to children in every part of the world. We know nothing of its history, and very little of its pathology, nor do we believe any one else does. It is an inflammatory affection connected more or less with the larynx, trachea, bronchial tubes and œsophagus, and most frequent about the latter part of the winter or the beginning of spring. We know also that it occurs as a rule but once during life, and that in childhood, although we now and then meet with symptoms very like it in adults.

Causes.—It results generally from infection, and like the principal

diseases to which children are liable is sometimes epidemic. It is called "kink-cough" in old medical works, and known by the same name at present in the manufacturing towns and villages of Yorkshire, Lancashire, and Cheshire.

Diagnosis.—Cough, feverishness and thirst. The former, after a few days, changes its character, and puts on the peculiar "kink" by which it is distinguished. Like all inflammatory disease it passes through a series of progressive stages more or less trying according to the circumstances of each particular case. Some children get through it easy, while others suffer most severely. In some the paroxysms of coughing are so extremely severe, as to all but produce suffocation.

Treatment.—*Hygiene.*—Beware of sudden changes, and exposure to cold, see that the sleeping apartment is well ventilated, and be careful to avoid excitement. Let the food be demulcent and easy of digestion.

Treatment.—*Medicine.*—No great amount of pathological or medical knowledge is requisite to enable us to understand what the case really requires. We notice the paroxysms and see that they come on at certain periods, and continue until the thick viscid accumulation is thrown off, after which the patient is comparatively free until the mucous again accumulates, when another paroxysm comes, and the same result follows. Nothing can be clearer, nor is there anything doubtful as regards treatment. Subdue the inflammatory condition, assist the expectoration, and wait upon time. There is not the least danger connected with it, and the worst cases, if properly managed, pass off harmless. It must not be presumed from these remarks that any kind of medication will meet the indications of the case, nor must we neglect it under the assumption that it needs no treatment; if we do, the consequences may be serious. It has been our lot to be called to cases thus neglected, and to find the children all but strangled, struggling under paroxysms so violent that it appeared almost impossible to get through them without rupturing some of the blood vessels which supply the lungs, and causing suffocation and death. This need not be, nor should we allow any case, however severe in its

character, to pass into such a state. Keep the irritation down by attention to temperature, light nourishing diet, and demulcent drinks. Prescribe the following:—

℞ Syrup of Lobelia ..... Two drachms.
Fluid Extract of English Rheubarb (Rheum European) .. Two drachms.
Scutellarin ..... Ten grains.
Antispasmodic Tincture ..... Ten drops.

Triturate or well mix in a mortar, add the fluid, and give from eight to twelve drops four times a day in a teaspoonful of the following warm infusion:—

℞ Artemesia Vulgaris (Mugwort Herb, dry)..... Half ounce.

Infuse in a half-pint of boiling water, strain, and sweeten with honey.

Should it be necessary to relieve the bowels, prescribe—

℞ Compound Powder of Leptandrin ..... One grain.

And if there is an accumulation of mucous in the larynx and and trachæa, keep your patient warm in a well ventilated room, and prescribe—

℞ Lobelia Tincture.

Give in doses of a quarter of a teaspoonful every ten minutes in the above infusion as freely as possible, until the system is relieved.

In all inflammatory conditions of mucous membranes the *Rheum European* is pre-eminently advantageous over every known remedy.*

LARYNGISMUS STRIDULOUS *(Croup)*.

Description.—This is a disease similar in many respects to the last, and like it, common to children. It is much more dangerous and often comes on without the least sign of a premonitary symptom of any kind. That it is an inflammatory affection of the glottis, larynx,

*It will be well to pay particular attention to the diet, for everything of a hard indigestible nature is injurious, and should be carefully avoided. It may also be necessary to remind the medical attendant or student (which ever he may be,) that the active concentrated powders, prior to being mixed with fluid extracts or water, should be well triturated in a mortar, with double or treble their quantity of powdered lump sugar. The particles are by this process divided, and adhesion when mixed with the fluids prevented.

and vocal chords we are very well satisfied, but beyond this we know nothing. It is presumed by some medical writers to be connected in some way with the development of the parts affected, but this is nothing more than a speculative theory which leaves us just as wise after we know it as before. That it is more common in cold damp situations than under more favourable circumstances, experience has long since taught us, and that it is liable to occur at any age from the first year up to the eighth or ninth, or even later, and even in the same children under similar circumstances, especially where predisposing causes exist, is equally well known.

Causes.—Damp, cold and sudden atmospheric changes, exposure to the north-east winds of declining winter or coming spring, sudden chill, obstruction in the circulation, and inflammation of the glottis and vocal chords.

Diagnosis.—Difficult and stridulous respiration, crowing ring-like cough, invasion often sudden and during the night, skin hot, pulse quick and hard, eyes suffused, spasmodic choking sensations, restlessness, clutching at the throat, &c.

Treatment.—*Hygiene.*—Look well to the temperature of the room, and remember that this is one of the diseases that admit neither of delay nor trifling.

Treatment.—*Medicine.*—Should the invasion come on suddenly, and at night, endeavour to relax the spasm at once. A night-lamp or candle placed near the mouth and head, covered so as to form a local hot air bath, will answer for the time being, until other means are ready. Children are often lost through the ignorance of parents who never having been taught to believe it possible to help themselves, rush from street to street in search of help which should, under all such circumstances, be at their own command. And now, with the understanding that cold is always the proximate cause of 'croup,' we shall presume that the fire is lit and the room well aired; this done, immerse the feet and legs in warm water for five minutes, and also the hands and arms up as far as the elbows, now wipe the skin dry, and with the body well protected and warm, take care to

allow every facility for free respiration of warm rarified air. This is a matter of the greatest moment in all sudden attacks, and for the want of which many a child's life is lost. Prescribe the following:—

℞ Antispasmodic Tincture ..... One drachm.
Fluid Extract of Scutellaria (Scullcap)..... Half drachm.
Fluid Extract of Rhubarb (European) ..... Half drachm.

Mix well, and give from five to six drops four times a day, in a teaspoonful of the following infusion, warm:—

℞ Glechoma Hederacea (Ground Ivy) ..... Half ounce.

Infuse in a half-pint of boiling water, sweeten, and give as directed.

In addition to this, which is the daily medicine, give an emetic at any time whenever the cough puts on the suffocating or stridulous symptoms.

℞ Vinum Ipecac (Ipecacuanha Wine) ..... Half drachm.
Antispasmodic Tincture ..... Six drops.

Mix well, and give from ten to twelve drops every ten minutes in the following infusion, until the stomach is freely vomited:—

℞ Boneset Herb (Eupatorium Perfoliatum) ... Quarter ounce.

Infuse in a small teacup of boiling water, sweeten, and give as directed.

It may be necessary to say that the bowels should be carefully watched, for a constipated condition always increases the violence of the attacks. To meet this difficulty prescribe—

℞ Compound Powder of Leptandrin ... From a half to a grain.

Triturate in a little powdered lump sugar, and give at any time when necessary.

Not a word more need be said regarding this disease, for although but little is really known of its pathology, its cure is clear enough. Subdue the inflammatory symptoms, watch the exacerbations in their premonitary stages, relieve them at once, and wait upon nature.

RUBEOLA *(Measles).*

Description.—This is one of the many eruptive diseases to which children are liable, and which occurs but once only during life. Why or how this is we shall not presume to say, for the best of all reasons, because we know nothing either of it, its origin or history. It assumes different degrees of character from the simple to the malig-

nant, and under the most careful treatment proves at times very intractable.

Causes.—That the latent or predisposing cause of measles is in some way or other connected with the blood we very well know, and that it is communicated by contagion we also know, but beyond this we can say little, or no more than that the disease is most common in the spring of the year or early part of summer, and that it sometimes puts on an epidemic character. Its immediate cause is obstruction, and this we know simply because it is preceded by fever or alternate fits of heat, cold, thirst, &c.

Diagnosis.—Catarrhal symptoms, dry hoarse cough, sneezing, running or watering of the eyes, quick pulse, alternate heats and colds, hot dry skin, fever, thirst, &c. These, which must be regarded only as premonitory signs, generally continue from four to seven days, followed by an eruption of round elevated red spots upon the forehead, face and chest, and subsequently upon the body and limbs which, after continuing for as many more days, become exceedingly irritable, and finally desquamate or scale off with the cuticle.

Treatment.—*Hygiene.*—What the disease is, which we are called upon to treat, is of no consideration whatever as regards this part of our treatment, for in all and every case where there are evidences of positive disease, it is absolutely necessary to see that the conditions of cure are properly supplied. Cleanliness, warmth, air, rest, diet and good nursing, all belong to this great primary branch of medical science, and the physician who overlooks them neglects the most important part of his work.

Treatment.—*Medicine.*—What is the disease we are now about to treat, and how do we know it is measles? We ask the question because it is often difficult to distinguish eruptive diseases during their invasive or premonitory stages. Now this is a point of the very greatest importance, for if every disease is a distinct entity, as is generally assumed, it is absolutely necessary to treat each 'distinctly,' and as all exanthematous or eruptive disease is preceded by signs, which have in many instances, if not an exact, a great resemblance to

each other, and as these 'signs' sometimes continue for days before the disease is fully developed, what are we to do in the interim? Shall we simply wait and do nothing for fear of doing wrong? or proceed to act upon the conviction that "disease is a unit," and that however much the external manifestations may differ, the internal or moving principal is in the blood, and that whatever will restore it to its normal condition will remove the disease, whatever it may happen to be? The latter we feel assured is the *rationale* of the question, and upon this consideration we proceed at once to act. But our professional readers may say, "this would doubtless be all right enough, presuming we were called to treat such cases in time, which we rarely are; for nineteen out of every twenty have passed from the incubative into the fully matured stage before we see them." That this is so we very well know, but it is nevertheless no reason why the truth should not be known. Presuming, then, that we are called during the invasive stage, that is to say, before the distinguishing signs or 'red circular spots' appear upon the face and chest, and whilst the fever, &c., are on, we must treat it as follows:—"Bathe the surface of the body all over in tepid or warm water, using at the same time ordinary or common soap, rub the skin dry, put on clean linen, and see that the bed is comfortable and the room properly aired. This done, give an emetic as follows:—

℞ Vinum Lobelia (Lobelia Wine) ..... One drachm.
Fluid Extract of Eupatorium Perfoliatum ... Half drachm.

Mix well, and give from ten to twelve drops every ten minutes, in the following:—

℞ Glechoma Hederacea (Ground Ivy) ..... Half ounce.

Infuse in a half-pint of boiling water, cover over, let it stand half-an-hour, strain, sweeten with honey, and give as freely as possible, (with the drops,) until the stomach is vomited. This done, continue to give the infusion alone; and in order to relieve the intestines of the morbid accumulation, prescribe—

℞ Compound Powder of Leptandrin ..... One grain.

Give in a little roast apple, or in any other way that may be convenient.

In the simple form of disease here treated, it will be seldom necessary to do more than relieve the stomach and intestines with the medicines named. Attend to hygiene, and give during the progress of the disease an infusion or preparation of apple tea, in change with demulcent drinks.

There are sometimes, however, complications of a very serious

character accompanying the disease which require great care and attention, and from which danger is always to be apprehended. Children predisposed to mesenteric disease, diarrhœa, apthous condition of the stomach, and a low state of vitality, are incapable of throwing the morbid poison out of the system, hence the peculiar condition of the disease often expressed in the prognosis of old women by the words "falling in." They have a notion (and it is a correct one,) that so long as the spots retain their colour and keep well out there is safety, but if they fall suddenly in there is danger. Now it is just here that all our difficulties lie, and out of which it is necessary for us to see our way before we can clearly comprehend our subject. Sydenham, speaking of the treatment which he found most successful, says, "I ordered them (the children of the most virtuous Countess of Salisbury,) to keep their beds two or three days before the eruption appeared, that the blood, according to its own genius, might cast out through the pores the particles that were easily separated which occasioned the disease; but I did not permit that they should have any more clothes on, or fire, than they used to have when they were well. I forbade the eating of flesh, and allowed them oatmeal (gruel) and barley broths, and now and then a roast apple; and for their drink small beer, and milk boiled with three parts of water, and when the cough was troublesome, as was usual, I prescribed a pectoral ptisan (expectorant soothing medicine,) to be taken often." We quote the above, not merely to show that Sydenham was dealing simply with uncomplicated rubeola, and that wherever this is the case there is perfect safety in the treatment named, but also to show that wherever the complications are severe, the disease may put on any one of the forms known as "rubeola catarrha, rubeola nigra, rubeola maligna, &c." To know that these complications grow out of other conditions, and that the cure depends much more upon the inherent vitality of the system and the skill we bring to its aid now than it did under the simpler form, is to understand at least the nature of the case, whether we succeed in accomplishing the cure or not. What are the complications attending the disease is now the consideration?

Note the condition of the stomach and bowels, for this is of the greatest importance, and on no account should it be overlooked, and if the motions are offensive, give—

℞ Compound Powder of Leptandrin..... One grain.

Every second day, or every day if necessary, and as an ordinary drink—

℞ Sanguisorba Officinalis (Burnet Herb) ..... One ounce.
Powdered Ginger ..... Ten grains.

Infuse in sufficient boiling water to cover, let it stand an hour, strain, sweeten with lump sugar, and give as freely as possible.

We see from the condition of the motions what is going on, and whilst we carry the morbid accumulations out of the system, we must sustain the life until it acquires a recuperative force sufficient to sustain itself, and what we have said of the bowels also applies to the stomach. The morbid accumulations must be removed, and there is nothing so efficient as emetics. The only consideration necessary is the strength of the patient. If there is sufficient power we may give it with safety as often as necessary.

In addition to these and the medicines recommended, we may give during convalescence a little sherry wine and water as often as convenient, daily, nor must we overlook the sequelæ that now and then follow severe cases; but as these are treated under different heads, it will not be necessary to do more than merely name the fact incidentally, nor should we forget to say that even these may have had a prior existence.

In quoting the following from Hufeland, a name which as a practical physician stands second to none, we desire simply to disarm prejudice and confirm our own experience. After speaking of the importance of emetics in the cure of this disease, he says*—

* "Measles in particular, and the cough which it so commonly leaves behind,—a cough which is only the sign of a remnant of a psoric irritation in the lungs, and which, as we know, is so apt to degenerate into tubercles, are particularly benefitted by an emetic. Of this I had a striking example in the following case. A little girl, twelve years of age, went well through the measles, and had reached the fourteenth day of the disease, her state was satisfactory, since, for several days, the fever had ceased, and even appetite commenced to return; but of a sudden this last ceased, the cough became violent, respiration embarrassed, debility increased, sleep was disturbed, she had headache and constipation, and purgatives had only little effect; I gave a vomit, it operated six times, and brought away much mucosity and bile; from this moment a spontaneous diarrhœa came on, a true crisis; affording five or six stools a day; the cough disappeared, appetite returned, and the health was soon re-established."—HUFELAND'S PRACTICE OF MEDICINE. *The result of fifty years' experience.* BALLIERE, *London.*

SCARLET FEVER *(Scarlatina).*

Description.—This is a contagious inflammatory eruptive fever, peculiar to children, and most common in the latter end of summer or beginning of autumn, particularly in wet seasons. Very little indeed is known of its history, and less, if possible, of its pathology. It often puts on a malignant and epidemic character, and in spite of our best efforts becomes at times particularly fatal. It has been separated or divided into three different forms, under the assumption that no single disease could present the well-marked, distinctive, and separate characters which it did. In this, however, it differs but little from measles, and we cannot see any real utility in the division, except to mark the intensity of its various aspects. The milder form is known as "scarlatina simplex," or simple scarlatina. The more severe as "scarlatina anginosa," and the most severe as "scarlatina maligna." That these are merely different manifestations arising out of the intensity of the same causes we are well satisfied, and shall content ourselves therefore by considering them in this light.

Causes.—Very little can be said under this head, seeing that so little is really known. It is presumed to arise or grow out of certain atmospheric conditions, and there can be no doubt but it does, still it is most irregular in its mode of attack and uncertain in its action. We have seen parents and children all differently affected under the exact same circumstances, and recollect a family where the mother was down in typhus, the son (a boy about eight years of age) in *scarlatina maligna*, two younger (girls) in "scarlatina simplex," the servant girl, about sixteen, in "scarlatina anginosa," but of a very mild character; and where the youngest, a child in arms and delicate, although completely surrounded by the same external causes, escaped without the slightest symptoms of the fever of any kind. That the disease is contagious we well know, but how it is that some are stricken down with the malignant poison in its most virulent form, and others escape it altogether, is one of those strange anomalies that bid defiance to all calculation.

Diagnosis.—*Scarlatina simplex.*—Lassitude, shivering, nausea, head ache, alternate heats and colds, quick pulse followed with fever, and about the third or fourth day, sometimes earlier, with an eruption of red spots upon the face and neck, which gradually increase and finally coalesce or run into each other until the whole surface of the body puts on a scarlet appearance which increases as the day advances. It is distinguished from measles by the fact that the scarlet or red appearance is irregularly diffused over the whole body, and that the skin presents no papular or raised points upon the surface. There is even in this form of the disease some slight irritation of the throat and tongue, which upon examination presents the same red appearance. About the fifth day of the eruption the colour begins to decline, and disappears in two or three days after with the desquamation of the cuticle.

Diagnosis.—*Scarlatina anginosa.*—If to the preceding diagnosis we add swelling of the throat, stiffness of the neck, nausea, purging, painful deglutition, sickness, inflammation of the tonsils and uvula, with great nervous excitement, we see at once the intensity or degree of virulence which forms its distinguishing character; and although the word "angina" is simply a generic term applied to morbid conditions of the throat only, it cannot be so considered in the present case, inasmuch as the whole system is affected more or less.

Diagnosis.—*Scarlatina maligna.*—It is little that need be said in order to distinguish this from the two former. 'Malignant' is sufficiently expressive, meaning of course, intensity of contagion, gangrenous sloughing, mortification, dysentery, delirium, acrid discharge of slimy bloody matter from the nose and mouth, difficult respiration, mouth and tongue black and parched, urine dark and bloody, insensibility, convulsions, death. We have already said "it is most irregular in its mode of attack, and uncertain in its action;" nor can we add anything to this at all calculated to increase our knowledge. In some instances the disease proves fatal as early as the second or third day without even any of the malignant symptoms, whilst in others it may extend to the end of the third week, and that too when accompanied with the most virulent manifestations of its intensity.

TREATMENT.—*Hygiene.*—There is no disease where hygiene is so strictly demanded as in "fever," no matter by what name it may be known; nor is there any disease for which medicine can do so much in company with hygiea, or where it can do so little without her. The ancients had a much better conception of this than we have: ÆSCULAPIUS, the GOD of medicine, and HYGIEA the goddess of health, were always represented in company; and there can be no doubt but that to this union much of their fame is due. Any physician, in fact, who carefully enforces hygienic conditions of cure, and prescribes agreeably with the great principles upon which the science of medicine rests, can scarcely fail to become successful in this profession, so tenacious is nature of everything that relates to the preservation of life. In the treatment of fever, 'hygiea' must keep us company go where we may. What then is our present case, and how shall we treat it? Is it scarlatina 'simplex,' 'anginosa,' or 'maligna'? Well, it is no matter; we may or may not be exactly satisfied which it is, nor indeed be able to say, if we are called in during its incubation, whether it may not be some other exanthematous disease. In either case it matters nothing, we are certain that it is disturbance, and this is sufficient. "Well," methinks we hear some half convinced reader say, "this is a strange doctrine, for until now we have understood disease in quite a different sense. "Fever' is doubtless 'disturbance,' but it may not be the same in character and must therefore require different treatment." This objection is not without force, for fever, like inflammation, assumes different forms, and requires different treatment; there is, nevertheless, but one end to keep in view, and that is the restoration of the body to its normal condition. It will be but a waste of words to argue the question further; we cannot allow the subject to pass, however, without directing attention to the disease in its malignant character. How little of the 'simple' scarlatina type is seen in it is evident from the *diagnosis*, and if to the fact that the same fever poison which induces 'scarlatina simplex' in children, sets up a more malignant character in the elder branches of the same family, and in the father or mother, or in both, TYPHUS in its worst form; we learn from this lesson that the unity of disease as understood and taught by the master minds in medicine has its foundation in nature, and at the same time see that there can be but one end to keep in view, however numerous

the agents or means may be by which we seek to attain it. With this knowledge deeply impressed upon our minds, we see exactly what we are called to do.

TREATMENT.—*Medicine.*—Have we attended to hygiene? that is to say, looked well to ventilation and examined into the situation of the sleeping apartment and general condition of the patient? if so we have done well, if not, let it be done at once; pull the window down three or four inches from the top, and if you can do it comfortably remove your patient at once into another room, and see that it is comfortably warm, taking care to avoid extremes, and above all draughts of cold air. This done, wash the surface of the skin all over with ordinary soap and warm water, rub dry, and order clean warm bed linen. Now this, which is simply 'preliminary,' is of the greatest importance, and under no circumstances can be safely overlooked. The disease in its milder form, *i.e.*, 'scarlatina simplex,' will readily yield to the following treatment; and if its more complicated or malignant characters are in a state of incubation, it will do much to remove the danger and lessen the difficulty.

℞ Fluid Extract of Eupatorium Perfoliatum (Boneset) ... One drachm.
Vinum Lobelia Inflata (Lobelia Wine) ..... One drachm.

Mix, and give ten drops every quarter of hour, in the following :—

℞ Spiræa Ulmaria (Queen of the Meadow) ... Half ounce.

Infuse in a full half-pint of boiling water, let it stand by the fire, sweeten and give in teaspoonful doses, with the drops, until the stomach is well vomited. The infusion may be given alone as freely as possible afterwards.

We have to keep constantly in our mind's eye the fact that the "fever poison" (for such it really is,) which now affects the whole system must be eliminated, and that the whole secret of cure depends upon this. We must do nothing to depress, but everything to sustain the natural forces upon which the restoration depends. Presuming this is understood, and we come to our work with the conviction that life, health, disease, and death are governed by fixed laws, and that they become the agents of good or evil, mainly by human agency, we shall see at once the importance of exertion, and leave nothing to accident or chance. Have we relieved the stomach of its contents? Yes! Why? Because the function of digestion is arrested, and whatever is there if not already in a state of putridity, will rapidly pass into

it, and assist the process of blood poisoning from which the disease originated and upon which it depends. And now we ask again, have we given and are we still giving the infusion of 'ulmaria'? Yes! Why? Because it is beneficial in all forms of putrid fever, particularly in those that have a tendency to pass into dysentery or flux, and because in addition to its medicinal properties it acts as an antidote to the poison, and assists to sustain life whilst nature eliminates the morbidity from the blood. And is it so? it may be doubtfully asked by those who know nothing of its virtues. We answer unhesitatingly, Yes! and "the very smell thereof," says an old writer, "makes the heart merry." Give it freely, then, and remember that "this is the medicine of nature." And now having attended to the ventilation, relieved the stomach, and assisted to break up the fever, our next aim must be directed to the intestinal canal. We have but to remember that the intestines, like the stomach, have lost their healthy action, and that whatever is there must become a source of irritation, and tend greatly to retard the natural efforts of the system to relieve itself.

℞ Compound Powder of Leptandrin ... One grain.

Give in a little preserve or roast apple, or in any convenient vehicle that may be at hand.

In the cure of the 'simple' form of the disease now under consideration, it will be seldom necessary to do more than follow out the directions given, and as the more virulent attacks depend either upon some peculiar idyosyncrasy of the system or poisonous quality of the virus (whatever that may happen to be), it is evident that the means of cure must be adequate to the requirements of the case.

It is through the want of attention to this, that the distressing *sequelæ*, such as abscesses in the throat, ears, and glands of the neck, hydrocele and anasarca so frequently occur. The poison has not been eliminated, and nature ever conservative, seeks to save the life as best she can. It will be quite unnecessary to say more than that if these evils are to be avoided, the means must be used; nor is there anything in the whole arcana of medicine half so efficient as the agents already prescribed.

Give the emetic and compound powder of leptandrin daily, so long as the fever continues and there is anything of a putrid character to be removed. Do this, continue the infusion of 'ulmaria,' attend to

the skin daily, and never for a moment lose sight of hygiene. "Do this," we say again, "and there will be little to fear from any form of the disease or its sequelæ."

In the febrile diseases which are common in the more advanced periods of life, there is no single remedy so efficient as a vapour bath; in its absence, however, as in the present case, the same end may be obtained by bathing the skin and prescribing warm diluents—diaphoretic, antiseptic, and other simple infusions; and as regards "emetics," whether we consider them in the light of prophylactic or curative agents, in all diseases of an exanthematous type their effects are truly marvellous. HUFELAND, the author from whom we quoted in rubeloa or measles, says, "Emetics, according to my opinion, take the lead of all other remedies in the treatment of children. The morbid matter in infants is most frequently located in the præcordia. In children the system of the præcordial nerves is of particular pathogenetic and sympathetic, and therefore of therapeutic influence; and every operation on it has a by far more general and decisive effect on the whole economy. Finally, in children, the operation of vomiting proceeds much easier than in adults. All this has been proved to me by experience in numerous cases, so that I could fill whole volumes upon this subject. I have removed in innumerable cases, immediately and perfectly, the most violent fevers in children by an emetic given at the onset of the disease; so I have done away with pectoral and tracheal affections, appeased the most violent cough which would not yield to any remedy; cured vomiting, diarrhœa, dysenteric attacks, even spasm when they originated in præcordial nerves. The result of my experience at the end of my long practical career (half a century) is this, "when a child, especially in the first years of life (from one to eight or nine), is attacked by fever, attended with want of appetite, furred tongue, still more when it vomits spontaneously, or has eructations and an inclination to vomit, never neglect to administer an emetic. IT IS OF INFINITE USE, FREQUENTLY ALONE PERFORMS A CURE, AND ITS OMISSION IS HARDLY COMPENSATED SUBSEQUENTLY BY OTHER REMEDIES, *even by emetics*, NOR OUGHT WE TO AVOID USING EMETICS, WHEN THE COUGH AND DIFFICULTY OF RESPIRATION ARE PRESENT AT THE SAME TIME, IT OFTEN PERFECTLY REMOVES THEM.*

*For fever drinks, convalescent drinks, gargles, external applications, glandular enlargements, &c., &c., see Appendix and Index at the end of the volume.

VARIOLA *(Small Pox).*

Description.—This is a contagious eruptive fever, and one of the most distressing to which the human race is liable. It is not confined, like measles and scarlatina, exclusively to children, but under some circumstances becomes epidemic, and attacks indiscriminately old and young, although it is more common with the latter, and generally more fatal. Of its origin we know nothing, and shall not waste our time in vain speculation. That nations which have long since ceased to exist were acquainted with it, we know from the fragments of history which have descended to us, and also that it was known to China, Turkey, Egypt, Greece, and Rome. It is presumed to have been known in France about the seventh or eighth century, and to have reached England somewhere about the ninth or tenth. As we have said, however, "we shall not waste our time in vain speculation," but endeavour so far as we possibly can to prevent, mitigate or cure it. The disease is divided into two varieties or forms, one is called "distinct," and the other "confluent." In the 'distinct,' the circular patches or pustules are separated, whilst the 'confluent' run into each other, or unite and form one mass of corruption or scab, which may envelope or cover the whole or part of the body according to the malignant character of the disease.

Causes.—Of its remote or even immediate causes but little or nothing is known beyond the fact that it may be communicated directly through contagion, or remotely in some way or other by means surpassing our power of comprehension. Children of a gross habit of body suffer more from it than others, and its fatality is far greater among the poor than among the more fortunate classes. Bad ventilation, inattention to cleanliness, impure food and water, with the numerous evils that track the footsteps of ignorance and poverty, all do their parts; hence it is more or less constantly with us, either in a sporadic, endemic, or epidemic form. In all ages of the world wherever civilization has been known, epidemic diseases have prevailed in some shape or other, and whether they assume the character of PLAGUE, LEPROSY, or FEVER, or whether we attribute them to natural causes or to the chastisements of an over-ruling Providence, this is certain that they

pass through a regular course and leave us to return, it may be, again and again, and that as circumstances are changed or modified in character, diseases are modified or changed also. No fact is better attested than this, nor can a single doubt be felt relative to its great importance, for whilst we may not be capable, do what we will, of averting the attack of any prevailing epidemic, we may nevertheless in the majority of cases so modify it that it shall fall harmless, and even under some circumstances, assist in making it a good rather than an evil. We accept 'small pox' as one of the inevitable evils to which, more or less, we are liable, but which, nevertheless, experience has taught us is as amenable to scientific medication as any of the less complicated diseases with which we are familiar.

Diagnosis.—Weariness and aching pains, particularly in the back and loins, alternate heats and colds, nausea, thirst, vomiting, tenderness about the region of the stomach, soreness of the fauces or back of the mouth, &c. The student will notice that these symptoms are not only common to variola or 'small pox,' but belong alike to all exanthematous or eruptive fevers. We understand this simply as the 'febrile' stage, which from the time of contagion or infection may continue more or less from twelve to sixteen days; for the first ten or twelve of which the symptoms may be very slight, but after the poison has fairly taken possession of the system, they become rapidly developed and pass into the 'eruptive stage.' Small red spots upon the face, neck, and breast, depressed in the centre, now appear, and soon cover the whole surface of the body, which by the end of the third, fourth, and fifth day become vesicular, or filled with a little yellowish fluid. About the seventh or eighth day the 'vesicles' pass into 'pustules,' and about the twelfth or fourteenth these give place to what is called 'maturation,' that is to say, the disease having passed through the different stages has exhausted itself, and is now dying out.

Treatment.—*Hygiene.*—Do we know what the disease is which we are about to treat? Yes! Why? Because we were not called until it had developed itself, or in other words, until the 'papular' spots appeared upon the face, breast, and neck. Had we been called during its invasion or 'febrile' stage, we might have made a pretty near guess,

but could have done no more. In so far therefore as hygiene is concerned, there are no other rules to be observed than those with which we have already been made acquainted. See that the apartment is well ventilated, clean, and free from all offensive smells, let the skin be sponged all over from head to foot with cold water, and after which rubbed dry. Consider and do this merely as a preliminary or first great necessary work, on no account to be overlooked. Now observe the bed linen, and be particular to see that it is clean and properly aired. We are to remember that the disease is contagious: in some cases extremely so; and that cleanliness acts not only as a preventive, but as an antiseptic, or in other words, each time the soiled bed linen is renewed or changed for clean, so much of the disease is absorbed, and its malignant character mitigated. There is in fact no prophylactic or preventive of 'small pox' equal to cleanliness, and nothing that medicine can do which can well supply its place.

Treatment.—*Medicinal.*—Is the case simply 'distinct,' that is to say, are the papular eruptions few and widely separated or numerous, closely clustered and irregular? Pass your fingers over the surface and the touch will satisfy you. The former, in ninety cases out of every hundred, will need but little medication; the latter, which is the 'confluent' will require attention, patience, and skill. It must not be presumed that the terms 'distinct' and 'confluent' sufficiently represent the numerous shades of difference that the disease may at any time assume: nor must we imagine that the 'contagious' influence of the disease is universal. It may, for instance, and often does, invade a whole family of children, including one or both the parents. In some it may manifest the most malignant type, that is to say, it may not only be 'confluent,' but in passing from the 'febrile' stage into the 'eruptive,' the symptoms may be considerably more severe, and delirium and convulsions supervene in spite of all the care that we can bestow, whilst in others the disease throughout may be so slight as to need but little care beyond that which hygiene can best supply. Now here are just two or three points for our consideration. Why is it that the same apparent causes produce such marked distinctions, or how is it that the contagious poison which strikes down one or two of a family shall be powerless to affect others? We know, for instance, that some constitutions are impervious or self-protected

from contagion of every kind, whilst others are so highly susceptible that care and precaution avail them nothing; hence the numbers that escape every kind of fever during the most severe visitations. It will be readily seen from these remarks that 'small pox,' like other forms of disease, may have many gradations, that it may be very slight and easy of cure, or very severe and difficult; that it may, in fact, set up a typhoid character and terminate in complete putrefaction. In cases of this kind the fever is often malignant from the beginning, and if as the eruptions or pustules advance towards maturation they turn black and delirium ensue, we may make our minds up for the worst. What the variolaic poison really is, how it originated, or when, we have not the least conception, but this by no means implies that we are ignorant of its cure. We know it is a specific blood disease, that the poison must be eliminated before the disease can be removed; and that in this there is no mystery. Time was when the patient was subjected to the depletive treatment, in order to draw the morbid matter out of the blood; this, however, although no longer fashionable, has scarcely given place to anything much more rational. VACCINATION is the preventive or prophylactic set up by FOLLY, and beyond it little is known and less thought of. To assume that 'small pox' can be reduced to a state of harmlessness and brought within the reach of rational medication, is to set ones self up as a mark for every fool to shoot at, and yet it is so. The disease, in fact, when developed under its most malignant form, is nothing more than a physiological protest. Outraged nature cannot endure the violations to which ignorance has subjected her; she asks for "bread" and we give her a "stone;" or in other words, sanitary, social, and physical science demand that men, women, and children shall have breathing room, and be wisely and properly cared for. Nature knows nothing of "political economy," apart from the philosophy upon which she has based the science of human life, and laughs at the policy which shuts up millions of half-starved human beings in alleys, courts, ill-ventilated factories, work-shops, badly-constructed streets, and worse-drained cities and towns. What are our puny interests to hers? She looks to the race which we in our ignorance reduce, deteriorate, and destroy. She comes to save a remnant, to prevent us from sacrificing the whole, and mercifully cuts away the lives which, if continued under the same conditions, could do no other than aggravate the evil, and thus when scrofula, consumption, and

disease, which in all their varied forms corrupt the blood, has brought us to the verge of extinction, 'variola' sweeps from the system the effete matter, and gives full and complete recuperation to life. It is for this reason that so few suffer and die of consumption who are pitted with small pox. This truth may not be so familiar to the superficial and thoughtless, it is nevertheless a 'fact,' whether we accept it or not; and presuming the conditions which at present obtain in society were incapable of improvement, 'small pox' must be accepted as a blessing rather than a curse. With these views deeply impressed upon us, we come to our work. How then shall we assist nature (which is the great physician,) in eliminating the poison and curing the disease? Have we paid attention to hygiene? for this is one of the diseases where it is indispensably necessary, hence we have been careful to enforce it. Presuming, then, that the skin has been attended to, and the bed linen and room well aired, prescribe the following:—

℞ Compound Powder of Leptandrin ..... One grain.

Give in a little roast apple, or preserve, every second day. Also the following infusion:—

℞ Galium Aparine (Clivers) .... Half ounce.
Verbena (Vervain) ..... Half ounce.
Cimicifuga Racemosa (Black Cohosh Powder) ..... One drachm.

Infuse in a pint of boiling water, sweeten with lump sugar, and give cold daily as freely as possible.

The great point to keep before us is the elimination of the poison, which is rendered more difficult from the fact that the function of the skin is more or less destroyed. The lungs, kidneys, and bowels being the principle excretory outlets, must be closely watched and attended to. Either of these, therefore, if obstructed in any way, increases the danger.

Closely watch whatever complications may arise, and grapple with them at once. Should the breathing be affected, or the stomach indicate evidence of morbidity, give—

℞ Lobelia Syrup ..... One drachm.
Fluid Extract of Eupatorium Perfoliatum (Boneset) ... Half drachm.

Mix and give from six to eight drops every ten minutes, in the following:—

℞ Archangelica Officinalis (Garden Angelica, dry herb) ... Half ounce.

Infuse in a half-pint of boiling water, sweeten, and give in teaspoonful or tablespoonfuls as directed, until free emesis is excited.

Should an expectorant be necessary, prescribe

℞ Lobelia Syrup ..... One drachm.

From three to four drops every two hours in half-teaspoonful doses of the Angelica Infusion.

Again we say "attend to the skin," that is to say, sponge the surface of the body all over daily, using the ordinary soap and cold water, and see, as we have already said, that the excretory outlets are attended to.

It is presumed that the doses of the medicine prescribed are equal to the requirements of a child from twelve to eighteen months; the medical attendant will understand by this that they are to be increased or decreased according to age or strength.

The importance of efficient harmless diluents cannot be over estimated in this disease, nor indeed any of the other medicines recommended, nor can their effects be understood but by those who with a courage greater than their fellows, have dared to risk the conventional reputation of professional folly, and stand once again upon the great foundation of nature.

It may be necessary to say here, that any obstruction in the kidneys, or difficulty of micturition, may be removed by the following simple diuretic infusions:—*Galium Aparine* (clivers), Daucus Sylvestris (wild carrot), Parietaria Officinalis (pellitory of the wall), &c., &c.*

It is but little that we need add to what has already been said. Practical experience and a reputation won against all the professional odds that cupidity and prejudice could pit against us, proves better than any amount of argument could ever do that small pox is as amenable to scientific medication as any disease with which we are acquainted. As regards the dread so commonly felt of blindness, disfigurement, and pitting, we beg to say that through all our experience we have never had a case where any of these evils followed the treatment which we here recommend, and which we have practised with such success for so many years. There is no preventive to pitting like cold water, and that simply because it allays the irritation, and leaves the

* Sir Gilbert Blane, speaking of small pox, says, "It seems almost needless to premise that 'small pox' is, of all maladies, that which during the last thousand years has destroyed the largest portion of the human species, and been productive of the largest share of human misery. THERE IS PERHAPS NO DISEASE OVER WHICH MEDICAL ART HAS LESS POWER."

parts intact. Should it be necessary to apply anything external, however, the following may be used with great advantage:—

℞ Tincture of Sanguniaria (Bloodroot) ..... Two drachms.

Gently touch the eruptions with a small brush or feather moistened with the above, after which with a little cream skimmed from new milk.

In no case, we say again, have we ever seen pitting follow the treatment named, and in no case have we ever met with the sequelæ so common under the old treatment.

Of diet we need only say, let the food be light and nutritious. Keep from animal food, butter, &c., and during the fever, or any time when there is thirst, give apple tea as freely as you please.

VACCINIA *(Cow-pox.)*

Description.—This is an artificial disease, created and continued under the assumption that it is a prophylactic or preventive of small-pox; the experience of near three quarters of a century, however, has fully exposed the delusion, and left us in division, doubt, uncertainty, and in a state of legislative despotism. At what time small pox originated we have already said we have "not the least conception;" all we know is that it is of ancient date—that in its malignant form it is a fearful disease, and that in almost all civilized nations some means of a preventive character have been universally practised. That the Turks, Egyptians, Chinese, and other peoples were acquainted with inoculation we very well know, and that it was introduced into this country from Constantinople by Lady Mary Montague early in the seventeenth century, and condemned as altogether worthless at its close, history has fully authenticated. Sir Gilbert Blane, speaking of 'inoculation' prior to the introduction of 'vaccination,' says, "It has actually been found to add to the general mortality of small pox, by opening a new source for the diffusion of its infection;" and in order to remove all doubts from the minds of those who had accepted it with the merits which its advocates had so long attributed to it, he gives the following RATIO OF MORTALITY OF SMALL POX, TO THE TOTAL MORTALITY:—

From 1706 to 1720, one in 12·7; that is 78 in 1000.
From 1745 to 1759, one in 11·2; that is 89 in 1000.
From 1785 to 1798, one in 10·6; that is 94 in 1000.
From 1804 to 1818, one in 18·9; that is 53 in 1000.

"From this statement it appears," he says, "that the proportion of deaths from small pox to the total mortality, increased in the course of the last century, so that 'inoculation' seems to have added to the mortality." There will be no necessity to argue the fact out, inasmuch as its abolition by Act of Parliament makes it altogether unnecessary; nor should we have introduced it, but from the fact of its very close relation to the subject of 'vaccination,' which from some obtuseness of vision or other cause on our part we positively fail to distinguish. What is 'inoculation,' and in what does it differ from 'vaccination?' The former, with the view of modifying small pox, was effected by the immediate introduction into the blood, *variola*, or small pox poison, through the cuticle by one or more punctures; the latter by the immediate introduction of *vaccinia*, or cow-pox poison (which is variola or small-pox poison in a modified form), by one, two, three, four, five, six or more punctures, according to the particular fancy of the operator, with the view of extinguishing the disease altogether. We do not propose to argue the question, for long experience has taught us the folly of this. There are, and ever have been, questions political, social, theological, and medical which society has gone mad upon, and which men could no more reason out than fly; there is nothing for us, therefore, but to wait until the 'madness' has passed, and this it will do when it has worn itself out, not before. For the sake of those, however, who may be interested only in what is true, or who are in a state of doubt, we will examine 'vaccination' as originally introduced and practised by Dr. Jenner and his disciples, and see if it possesses the merits attributed to it, that is to say, of extinguishing small pox (and nothing less than this was promised); for "it is now a matter of irrefragable historical evidence," said Sir Gilbert Blane, that "vaccination possesses powers adequate to the great end proposed by its meritorious discoverer in the first promulgation of it, in 1798, namely, the total extinction of small pox." He then goes on to say, "*It is* DEMONSTRABLE *that if at the first moment of this singular discovery, at any moment since, at the present or any future moment, mankind were so wise, and decided to vaccinate the whole*

human species, who have not gone through the small pox; from that moment would this most loathsome and afflicting of all the scourges of humanity be INSTANTANEOUSLY AND FOR EVER BANISHED FROM THE EARTH." Now who but a madman could have written so positively upon a subject of which so little was practically known? For very many years prior to Dr. Jenner's time, the cattle in many of our English counties suffered from variola and other eruptive diseases. Cows, pigs, horses, and domestic animals were equally affected, and the eruptions were often communicated to the attendants, but more particularly the kine or cow-pock eruption to the hands of the milk girls of Berkeley and the neighbourhood. This had long been noticed, and in the course of the different endemic and epidemic visitations which small pox made, it became in time an accepted fact that those who had previously taken the disease from the cows were exempted from the contagion and escaped its consequences. This simple fact led to the practice of 'vaccination,' which was principally performed upon the children by their grandmothers or old women of the villages with a stocking needle. A single puncture in the arm or foot, or some other part of the body, with a little of the virus taken directly from the teat or udder of the cow, were the means employed. How long 'vaccination' had been practised in this way we cannot now say, certain it is, however, that it was not of modern date at the time Dr Jenner received the impression. Born and brought up in Gloucestershire, in the midst of a people deeply tainted with this and other superstitions, he could not altogether escape their influence. Indeed, vaccination had been always treated by the more affluent as a delusion too vulgar for any but the very lowest. Dr. Jenner saw something more than 'delusion' in it, however, and like a brave man he dared to oppose the prejudices of his own class, and think and judge for himself. In considering this question, it will be necessary for us not to overlook the general condition of mind existing at the time. Of hygiene and sanitary science, if medical men knew little, society knew less; and the results were seen not only in small pox, but in the very many diseases under which the people laboured. For many years after Dr. Jenner received the first impression, he pondered over the strange fact, how was it that they who took the infection from the cow, and the children upon whom their grandmothers and the old women operated escaped the infection, and why may not all 'escape' if the practice was universally

applied? This to the young Gloucestershire surgeon was no 'superstition,' but a reality; he saw what he believed a fact of *more* importance than any that had ever influenced the destinies of mankind. Of 'small pox,' whether in man or beast, as a physiological protest against the universal ignorance which everywhere prevailed, he never once thought. The laws of nature were unknown and unregarded, uncleanness he knew might and did create scabies, but that imperfect ventilation, bad drainage, impure food, poverty, and general ignorance could breed 'small pox' and decimate nations, and that the removal of the causes might also remove the effects, he had not the least conception. He saw, however, that 'small pox' in the beast, or 'cow-pox,' when communicated to human beings either by accident or design, produced certain effects, and endeavoured honestly and as best he could to work out from these facts a universal theory. "It ought to be stated," Sir Gilbert Blane says, "that vaccination itself *is attended with no danger, and frequently takes effect without any visible disturbance in the system.* THERE IS EVEN REASON TO BELIEVE THAT IN ITS PROCESS IT WARDS OFF OTHER DISEASES BY PREOCCUPYING THE CONSTITUTION." This was Dr. Jenner's idea, and we see from the quotation and from the fact of the writer being at that time not only physician to the King, but one of the great medical luminaries of the age, what progress it must have made before it could have been accepted so universally and in such high quarters. But let us whilst we seek to expose the error, at the same time endeavour to discover if it really has any merit. Admit that variola, or the small pox poison of the cow, through the milder character of the disease produces a 'milder' type in the human being, and that it "frequently takes effect without any disturbance in the system." 'Admit' we say this, what does it amount to? Do we not know that 'small pox' has very many gradations? that in some it is so exceedingly mild as scarcely to produce any marked or visible effects, that in others it is most malignant, and that very many during the severest visitations appear to possess some charm by which they are carried safely through every period of life. But if the extinction of 'small pox' is to depend upon the 'variolaic' poison of the cow and the original kine pox (in consequence of the introduction of sanitary and hygienic measures of a higher order than those formerly obtained) has since Dr. Jenner's day died out, what becomes of his theory? And has the disease

which was so common prior to and during Dr. Jenner's time really died out? methinks we hear some doubtful reader ask. We answer unequivocally yes! it is not at present known. In what way then, it may be asked, is 'vaccination' now carried out? we answer, it is *non est*. There is no such thing; and what is called 'vaccination' is 'inoculation' and nothing more, and the penalty which is at present attached to the latter may, with equal propriety, be applied to the former. If one is bad, the other is equally so, for both are the same. What a strange anomaly! 'Inoculation,' or the introduction of the variolaic poison directly from one human being to another is prohibited by law, whilst the variolaic or cow-pox poison, which no longer being directly available from the cow is passed through the human system again and again, partaking in many cases other and more corrupt properties, may be enforced by continuous fine and imprisonment. "But see," it is said, "the lives 'vaccination' saved, and the good it did soon after its introduction." One feels ashamed to be compelled to consider the puerile arguments that have been so long employed to support it. The mortality from 'small pox' up to the end of the seventeenth century, after 'inoculation' had been tried for nearly one hundred years, had increased with all its concomitant evils, and the rapid declination of the disease immediately after, have been introduced by the ardent advocates of vaccination as proofs strong as holy writ in its favour, whereas it proves nothing more than the veriest novice in natural science might have known had the mind been prepared for its study and reception. Is it not the nature of all epidemic disease to exhaust itself, and when it has done so is there not necessarily a cessation for a time of the more distressing and fatal results? Has it not always been the case in all ages of the world with every epidemic that has ever been known? Who that is sane could contend that the 'cholera' of the present age, or plague of the past, have been uniformly the same in intensity and character? Why then should we set up such a false theory for small pox and legislate unwisely upon it? The answer is, because of the darkness which obtains with this and all other questions relating to the health education of mankind. "One hundred and fifty-four years ago," says Sir Gilbert Blane, "it carried off seventy thousand victims in a few months, but since that time the deaths from small pox recorded in the bills of mortality have amounted to more than three hundred

thousand, and a like number of survivors have been afflicted with blindness, deformity, scrofula, &c., &c. Now if we remember that during a great part of this time 'inoculation' was practised, and that its advocates were just as blind as the 'vaccinists' of the present, we shall see how little there is to be depended upon in theories of any kind. The dream still is, that 'small pox' may be extirpated if 'vaccination' can be fairly carried out, and since it is impossible to convince the thinking portion of the people by reason, the law must step in to enforce a practice so stupidly disgusting and injurious that one can scarcely realize the belief of its possibility. The power of sanitary science and hygiene to prevent disease is a thousand times greater than the wisest of us have yet conceived, and even where they may not entirely prevent, they modify, or render it all but harmless; nor is small pox any exception to this rule. Add to these facts the simple indigenous remedial agents with which thousands of the people are already acquainted, but of which our "legislators" and "medicine men" know nothing, and we see at once the reason why so many set their faces against it.

Causes.—The introduction into the blood of a morbid virus, originally taken from the 'small pox' pustule, once common to the cow, and chiefly developed upon the udder and teats, but now no longer known.

Diagnosis.—Invasion and eruption similar in all respects to small pox, but in the generality of cases milder in character. For the first two or three days after the poison has been introduced the puncture or punctures appear red and a little elevated, on the fifth day they enlarge, and on the sixth small pustules filled with watery lymph may be noticed, which increase until about the eighth day, when they assume a yellowish colour, become thick and purulent. Sometimes the axillary glands inflame and enlarge, about the ninth or tenth day the 'pustule' or 'pustules' (which are determined by the number of punctures,) change into dark brown scabs, and in a few days after fall off. Like small pox it may be either mild or malignant, and followed with *sequelæ* equally distressing.

Treatment.—*Hygiene.*—We must remember that the disease has been set up by artificial means, and that its character will depend

entirely upon the condition of the *virus*, and the idiosyncrasy of the constitution. Some children possess full and complete immunity from "small pox," and in such cases 'vaccination' produces an immediate effect, whilst others, from feebleness of constitution, are unfitted to undergo the operation. The "Compulsory Act" has provided for this, hence parents who can secure a certificate to that effect from any legally qualified medical practitioner may refrain from having their children 'vaccinated' so long as they remain unfit. We shall presume, however, that it has been set up without the consent of the parents, in order to avoid the fine enforced by the Compulsory Act, how shall we treat it? The following came under our notice not very long ago, and we give it simply to show the force of maternal love. The woman of whom we are speaking was truly a splendid example of courage and good sound understanding; her husband, on the contrary, although of the same town, and, like her, Yorkshire, was just the man to follow wherever fashion and ignorance might lead. He would have the child 'vaccinated,' because he disliked the "bother of the doctors," and it was done. "Well," he said, one day as he came from his work at the dinner hour, "hes ta gottan t'barn vassinated?" "Aye," was the reply, "I hev, an' tha sall see it when tha's gotten th' dinner." The meal over, the child, as beautiful a boy as eyes ever rested upon, was taken from the cradle, and his arm, which had that morning been punctured in five places, exposed to the satisfaction of its father. "That's reight," said he, "nah a chap 'll get a bit o' peace." And peace he did get, and so did the fond loving mother, and all parties concerned. The surgeon had punctured both arms three different times, in five places, and each time the mother, as soon as he left, placed a little fine salt upon the punctures and sucked the virus out. How it was the operation failed puzzled the medical attendant greatly. "It does happen so," he said, "in spite of our best efforts sometimes." "Aye," said she, as she told in confidence her ingenious story, "an I wod a suck'd t'poison out a thaasand times." She never made her husband the wiser, nor any other person; and why did she do this? The reason was simple. She trembled, she said, to think what the consequences might be, for she knew it was impossible to say the lymph might not be impregnated with some one of the many cutaneous, scrofulous, or pulmonary diseases now so common, and felt satisfied there was much less danger

to be apprehended from allowing nature to take its course. "I knew not only the worst 'small pox' might do," she said, "but the means to be employed to cure it;" and as she told her tale of maternal love, we thought what a blessing it would be for all children if they were born and nursed by such mothers.

TREATMENT.—*Medicine.*—We shall presume that the operation has been performed successfully, and by the consent of the parents. In such a case if everything is favourable, there is nothing to be done but to attend to the child, as upon all ordinary occasions; if, on the contrary, the disease should set up a malignant character, or be accompanied or followed by any other symptoms than those which naturally belong to it, then the necessary treatment must be applied. There is no physician of any experience but is well acquainted with the many disturbances that occur in spite of all the care that can be bestowed, and it is worse than folly to disguise it. Jenner himself met with cases that baffled his judgment and caused him much distress; and even Sir Gilbert Blane, from whom we have already quoted, was compelled to acknowledge the many mishaps, although the 'vaccine' was at that time taken directly from the animal. "I have seen it," he says, "attended with high fever and a thick crowded crop of papulæ, such as precedes the most severe and dangerous cases of the confluent kind. This runs on till the fifth day from the eruption, both days included, at which time some of the papulæ begin to be converted into small sized pustules. The disorder then abruptly stops short. On the following day the fever is found to have subsided with a shrivelling and desication of the eruption, and recovery proceeds without the least danger or inconvenience. The face is marked for some time after with brown spots, but without pits. *It should never be forgotten that all morbid* PHENOMENA *are full of varieties and exceptions. Accordingly, though the fifth day is the common limit of this disorder,* IT SOMETIMES STOPS SHORT ON THE THIRD; SOMETIMES NOT TILL THE SIXTH OR SEVENTH; AND IN A VERY FEW CASES IT HAS BEEN KNOWN TO RUN THE COMMON COURSE OF 'SMALL POX.' What forms the strong line of distinction from 'small pox' proper is, that with a few exceptions, it does not advance to MATURATION and SECONDARY FEVER, which is the only period of danger. *I am not* PREPARED TO DENY THAT DEATH MAY NOT HAVE

OCCURRED IN A FEW INSTANCES; nay, there appears sufficient evidence that it actually has; BUT THESE ADVERSE CASES ARE SO RARE AS NOT TO FORM THE SHADOW OF AN OBJECTION TO THE EXPEDIENCY OF THE GENERAL PRACTICE." These admissions, which we must remember were forced from *Sir Gilbert* by the cases which were continually cropping up soon after the introduction of 'vaccination,' and the fact of their rapid increase during the last quarter of a century, we could not in justice pass over. It is presumed, prior to the operation, that the child is in perfect health, and this is of the greatest importance. Look well to it, and watch carefully for unfavourable symptoms, in order that they may be met at once. Should the bowels require attention, give—

℞ Compound Powder of Leptandrin ..... One grain,

every second or third day, as necessary; notice also the condition of the stomach, and if necessary, give—

℞ Fluid Extract of Lobelia ..... Ten drops,

in the following:—

℞ Veronica Officinalis (Speedwell Herb, dry) ..... Half ounce.

Infuse in a half-pint of boiling water, strain, sweeten with lump sugar, and give in tablespoonful doses every two or three minutes until six or eight tablespoonfuls, or more or less have been taken; after which, mix the extract in a tablespoonful of the 'infusion,' and give in teaspoonful doses every ten minutes until the whole is taken. The herb infusion cannot be given too freely.

In our treatment we have to remember, that as in the milder forms of 'small pox,' little or no medicine is necessary; in the milder forms of this also the same consideration obtains. Hygiene, under every condition, must be enforced, for which see page 194, and for any of the more malignant cases or *sequelæ* that may arise or follow, see "Formulas" in the Index. It is perhaps needless to remind the reader of the perfect harmlessness of the medicine, we nevertheless do so, and at the same time say, "give them in the form prescribed whenever necessary." Do not by any means stint, nor fear that they may do harm; the only 'harm' that can arise is from not giving them. In their use there is perfect safety, and a curative power surpassing anything that can be conceived by those who have never

witnessed their effects, or known by experience the truth of our statements.*

* We might, if we pleased, give statistics and facts in proof of our objections by the cart-load, but from having lengthened the subject out beyond what we intended, and the conviction that those who know the truth, if disinterested, will not need them; and that those who do not care to know it, or who are 'interested' will not heed them, we shall conclude by quoting the following letter from "*Public Opinion*," and a very foolish leading article from the *Medical Times* of April 24th, 1869; and our reason for the latter is, because we wish to preserve a small specimen of the medical philosophy of the nineteenth century for the profession of the twentieth:—

"SEARCH," CLUB DOCTORS, AND VACCINATION.

TO THE EDITOR OF "PUBLIC OPINION."

SIR,—In your last number, a correspondent, unknown to myself, who uses the signature of "Search," asks a series of questions on the above subject, in one of which he mentions my name among other qualified practitioners of medicine who have condemned vaccination. Permit me, therefore, to justify my conviction that vaccination is an evil, by a brief appeal to facts which cannot be disputed.

The first question asked by "Search" is the following:—"Are not three-fourths of the patients at the small pox hospital vaccinated persons?" In an interview I had with Mr. Marson, surgeon to the small pox hospital, last month, I was informed that the proportion of vaccinated patients admitted with small pox had gradually increased in the last twenty years, and that last year it amounted to 81 per cent.—more than four-fifths of the patients admitted. The prophylactic properties of vaccination are very doubtful. The second question asked by your correspondent is, "does not small pox repeatedly rage in the army and navy, where vaccination is complete?" My answer is—"it does; and not long since a ship's crew, *all* vaccinated, had small pox, and several died. I am continuing my researches into the prevalence of small pox and its kindred fevers in the army, which I hope to publish in my next essay.

The third question is as follows:—"Is not tubercle, or consumption, communicable by inoculatory process?" My answer is the affirmative. M. Villemin has, with other experimental physiologists, demonstrated—placing the matter beyond all doubt—that inoculation with tuberculous matter does communicate that disease. A serious reflection arises from this fact—viz., that the increase of tubercular disease in every country where vaccination has been enforced, may be attributed to the transference of that disease through the means of so-called "vaccine lymph."

To the fourth question—"Is not consumption so largely on the increase that now more than half the deaths of females from 20 to 25 years of age are attributed to that disease? My answer is,—Alas! yes, too true! The last volume of the Registrar-General's returns shows that "of the 8477 young women from 20 to 25 years of age who died in England in 1865, 4290 (being more than one-half) died of consumption." Appalling, indeed, is this fact, and of sufficient importance to attract the attention of all who feel an interest in the future physical welfare of England.

The very large proportions of death from chest diseases, and the very insignificant proportions of death from small pox, even in the worst years of

small pox, are seen at a glance at the following exact figures extracted from the Registrar-General's reports :—

Mortality from nine principal causes of death in the three years, 1863–4–5 :—small pox, 20,059 ; measles, 28,234 ; whooping-cough, 28,492 ; scarlatina, 77,885 ; typhus, 61,157 ; *phthisis*, 157,852 ; bronchitis, 107,422 ; pneumonia, 71,140 ; convulsions, 79,112." Scarlatina, it will be seen, killed more than small pox, measles, and whooping-cough together, *whilst the three forms of chest disease killed in the aggregate* 336,414. I am prepared, Mr. Editor, to show that in the last thirty years the death-rate of England has increased with the extension of vaccination.

The fifth question put by "Search" is—"Is it not true that another loathsome disease, and even death, is sometimes consequent upon vaccination." It would occupy too much of your valuable space to fully answer this question. In my volume noted below I have adduced abundant evidence of such results ;—the terrible increase of syphilis in every class of the community in this country can only be accounted for by the extension of vaccination ; and if the process is still further extended, the evils will become still more serious, and the effects be evident for the next century, because diseases communicated, "infused," by vaccination are transmissible, while small pox is not transmissible from parent to offspring.

I have been more than ten years engaged in investigating this important subject, and I can only account for the apathy of my professional brethren on this subject by their willingness blindly to follow the dicta laid down by Schools of Medicine and Privy Councils. In heaven's name, Mr. Editor, I implore you to allow the discussion of such an important question, involving the physical welfare of the people of every civilized country. England gave to the world the means of contaminating the races of man, leading to their deterioration ; may England yet make some amends, and undo its deadly work by the repeal of all vaccination laws, is the patriotic wish of your obedient servant, CHARLES T. PEARCE, M.D.

28, *Maddox Street, London, March* 10.

BREACH OF THE VACCINATION ACT.—THE SHORTCOMINGS OF THAT STATUTE.

A case of some importance under the Vaccination Act came before the Leeds magistrates last week. A chemist of the name of Toulson was summoned by the Leeds Board of Guardians for non-compliance with the provisions of the Vaccination Act. It appeared that the defendant had a child nine months old, which he refused to have vaccinated. The defendant told the Inspector of Vaccination that he had a very great dislike to that proceeding, and would rather submit to be fined than allow a child of his to undergo the operation. Mr. Toulson, in reply to the charge, stated that during his extensive medical experience he had seen so many evils arising from the vaccination of children that he really could not comply with the Act. There was no positive proof that vaccination had ever saved a child from small pox, and therefore it was very unjust to enforce such a law. The Court said they were not there to make laws, but simply to carry out their provisions. They would, however, remand the case for a week to give the defendant an opportunity of complying with the law. Mr. Toulson said a remand would lead to no satisfactory result, as he should not submit to the law. Mr. Lampen, who appeared for the prosecution, wished it to be clearly understood that the payment of a fine would not

exempt Mr. Toulson, as the guardians had the power to summon him under other clauses of the Vaccination Act, and this they would do. Mr. Toulson persisted in his refusal, and a fine of 20s. and costs were paid by Dr. J. P. Payne on behalf of the Leeds branch of the London Anti-Compulsory Vaccination League.

This case gives rise to serious reflections as to the value of the Act in question. It is evidently useless to argue or to advance facts against the opinions held by such persons as Mr. Toulson. They refuse to listen to reason or to profit by experience. Moreover, if Mr. Toulson be further prosecuted under the Vaccination Act, he will be able to fall back upon the Anti-Compulsory Vaccination League, and escape without any personal sacrifice. Here let us say that it becomes a grave question how far a "league" formed for the avowed special purpose of defeating the operation of an Act of Parliament is within the law. Is such a combination different from any other combination which has an illegal object in view? Are the members of such a "league" exempt from penalties? Are they, or are they not, liable to be prosecuted for conspiracy? This is more a question for the lawyers than ourselves, but it is one that, if the present organized system against vaccination be persevered in, must, sooner or later, occupy the attention of the Legislature. If the Vaccination Act cannot effectually reach offenders against its clauses, either it must be made more stringent, or proceedings under it must be dropped; for it will never do to have controversies in every small town with "anti-vaccination leagues," and vaccination "martyrs" coming off victoriously in their conflict with law. Clearly, fines are inoperative. Singularly enough, in the very columns of the *Leeds Times*, which records the recalcitrant conduct of Mr. Toulson, there is the account of a contractor, who, having been repeatedly fined for cruelty to his horses, was, on this occasion, sent to the House of Correction for six weeks. In any future amendment of the Vaccination Act a clause might be inserted that would empower a board of magistrates to inflict imprisonment upon men weak or foolish enough to repeatedly ignore the statute. *To Mr. Toulson and his friends we would recommend the perusal of one of the most graphic chapters of "Henry Esmond," by the late W. M. Thackeray. That chapter refers to the terrors and miseries which resulted in times gone by from the outbreak of small pox as an epidemic in one of the rural districts of England. No one who knew him will accuse Thackeray of illiterate opinions or of narrow views; he was essentially a large-hearted man. If Mr. Toulson, after reading the chapter referred to, still maintains the opinion respecting vaccination which he enunciated before the Leeds magistrates, it is hopeless to expect that he will ever rise to the point of viewing vaccination as it appears to all sensible and thoughtful men.*

Medical Times, Saturday, April 24th, 1869.

We have put the most striking argument of the article in italics, and would say in reply, read Dr. Pearce's letter as given above, and if that is not sufficient, read "Have you been Vaccinated," by Dr. Collins; or read Mr. John Gibbs, on "Vaccination;" or the numerous other talented writers in this and every country in Europe. We are not questioning the literary abilities of W. M. Thackeray, nor the greatness of his heart; we are pleased to see, however, that the editor of the *Medical*

Times can condescend to quote a non-professional [illegible] demands it, and recommend him and his friends to read "De Foe's History of the Plague," he will find facts there unembellished with the literary colouring of a master in the art, quite sufficient to satisfy the most sceptical, if any can be found to doubt its horrors: but the 'plague' has done its work, and left us long ago. What a pity that our profession could find no genius to modify or extirpate it, or failing in these, to transmit it in its entirety by some artificial means. But if the Compulsory Vaccination Act cannot be made to effectually reach offenders against its clauses, it must be made more stringent. Of course; and we must imprison every "Toulson" who dares to rebel—every "league" who dares to pay, and every poor mother who dares to "suck the virus out."

> "O the curst fate of all conspiracies,
> They move on many springs. * * *
> Where wilt thou find a cavern dark enough
> To mask thy monstrous visage."
>
> *Shakspere.*

VARICELLA *(Chicken Pox).*

Description.—This is an eruptive disease, which in some points resembles small pox: it is, nevertheless, free from the same dangers. It is little that is known about it, and we shall content ourselves by saying as 'little' as possible.

Causes.—It is said by some writers to be non-contagious, but this is an error; the poison, it is true, is not of the same virulent character, but that it may be communicated, experience has long since proved. How it was originally caused, or why it continues, we are at a loss to comprehend, and are therefore content to accept the commonly received opinion that similar causes, but of a milder character than those which give rise to *variola* or small pox, at particular seasons give rise also to this. It was originally called *variola spuria* or spurious small pox, and may be mistaken in some of its severest forms for that disease.

Diagnosis.—Eruption similar to that of small pox, but generally confined to the shoulders and breast. Like all eruptive diseases, it

is ushered in with fever. The papillæ are not depressed as in small pox, but much smaller, in some cases numerous, and in others scarcely perceptible. The distinction between this and 'small pox' consists however not so much in the fever, which varies according to the character of the constitution which it invades, as in the rapidity of its course. In 'small pox' a three days' fever generally precedes the eruption; 'chicken pox' is in general preceded only by one day, the vesicular and pustular changes are equally rapid. The same may also be said of the desquamative stage; hence whilst *varicella* runs its course in about four or six days, *variola* occupies twice the number.

Treatment.—*Hygiene.*—See Small Pox, page 194.

Treatment.—*Medicine.*—See Small Pox, page 195.

In concluding the Chapters VIII and IX, on the "Diseases of Infancy," the reader will not require to be told that there are other forms of disease to which children are liable, besides those enumerated; but as they are not confined to the 'two periods' within which these more exclusively belong, and as the majority at least are common to all periods of life, we think it will be more in order to treat them under general rather than distinct heads. The attempts that have been made from time to time to classify diseases and uniformly arrange them, have each in their turn failed; and we have preferred to strike out the path chosen rather than walk in any of the old beaten tracks.

Chapter X.

CUTANEOUS DISEASE; DERMATOLOGY, OR DISEASES OF THE SKIN.

"Let us suppose that, in the course of a thousand years, a thousand authors had made improvements in the profession, and then a person who has diligently studied their works may improve his mind as much in knowledge as if he had devoted a thousand years to the study of medicine. But, when an acquaintance with former authors is despised, what need be expected from the efforts of a single person? For, however much he may surpass others in abilities, how is it to be supposed that his private stock of knowledge should be at all worthy to compare with the accumulated treasures of antiquity? *In a word*, he who has never turned over the pages of the ancient physicians, nor has formed to his mind a distinct conception of the nature of diseases before he enters the chambers of the sick, will find that from ignorance and misapprehension he will confound one complaint with another, for this obvious reason, that he has come to his task unprepared and uninstructed."*

One of the world's greatest reformers once said, "They that are whole need not the physician, but they that are sick." No fewer words ever spoken carried with them so much force; for when a man, or body of men, have arrived at a state of perfection, that is to say, when they have no longer anything to learn, they are in a most dangerous condition. Now this, most unfortunately for society, is the state of very many members of the profession to which we have the honor to belong. Trained to believe that medicine in past ages was little better than a jumble of barbarous formulas, and that with the possession of a diploma or diplomas of one or more of the numerous colleges, to whom the legislature has from time to time granted the exclusive right of dispensing medical licenses, that they have been made the recipients of all knowledge, they look upon everything outside their own narrow circle, unsanctioned by modern legality, as altogether below the notice of "educated gentlemen." We very well remember the complacent expression that settled upon the faces of the numerous students in

* Preface to Paulus Ægineta; by F. A. Adams. Sydenham Society, 1844.

the theatre of St. Bartholomew's Hospital, when the talented and venerable surgeon, Mr. Skey, upon the occasion of the first lecture for the winter session of 1858, told them "never to forget that they were gentlemen." What a 'gentleman' was he did not think of telling them. This, however, is generally the first lesson taught to students by medical teachers, and verily the impression is enduring. It is to this, and the all but complete isolation from everything connected with ordinary associations of ordinary men, that many medical professors owe so much of their weakness. The ages that are past reflect no light, and the improvements of the present no advantages. They cannot, dare not, in fact, know anything until it has been percolated through the conventionalism of the schools. But why, it may be asked, do we speak so disrespectfully of our profession? Say, "so truthfully of its members," rather, not of "our profession." We reply, because experience has confirmed us in our opinions. The work, for instance, upon which we are now engaged, if it were possible to make them see the truths it teaches, would become, in their hands, a treasure invaluable, and to mankind an incalculable blessing; but to teach anything really good, is to subject one's self to professional censure, and become a target for every medical simpleton to shoot at.

In naming this, we by no means wish it to be understood in the light of censure, for it is much harder to unlearn what is false, than learn what is true; and error once established is not easily rooted up.

We say advisedly, that full three parts of the "cutaneous diseases" under which mankind at present suffer, owe their origin and continuance more to the present practice of medicine than to any other cause; and that until it is made to give place to a treatment more in accordance with science, it is altogether impossible to remove it. There are few practitioners who have lived to number three score years but will remember the practice of early days. The two great remedial agents then in fashion were calomel and the lancet, and although the latter has ceased to hold a place in therapeutics, the former, except in very few instances, in some form or other still retains its popularity; not so exclusively with medical men as formerly, but with the thousands of registered drug-men, now so numerous throughout the United Kingdom. There is nothing for us, however, but to labour on, and wait upon time; and this we do with the con-

viction that another quarter of a century will do as much to rid us of 'calomel,' as the last has done to rid us of the lancet. America has, in fact, already prohibited the use of mercury and antimony in her army and navy; and, whether we like it or not, it is sure to be reflected to us, as so many of her improvements have already been.

Speaking of medicine, a writer of no mean repute has said: "In many of the arts and sciences there appears but little place for fresh enquiries; the subjects seem to have become exhausted. But in therapeutic medicine, in the treatment of disease, the field of observation is but little occupied. *There is a vast and unexplored region which it would be well for the health, comfort, and life of our fellow creatures were it speedily entered.* It may be repeated here that the cure of disease by fresh infusions and decoctions of the numerous indigenous medicinal plants with which a wise God has gifted every country, is a subject not only of interest to the student and to the philosopher, but of the first importance to the public." But we have said, speaking of false teaching, "it is much harder to unlearn what is false, than learn that which is true;" and finding it a hopeless task to teach those who have nothing to learn, we seek those who are not in this perfect condition, believing that the genius of our country is quite equal to the task, when it can be brought to see the advantages which the study offers.

Many of the "cutaneous" or skin diseases which we shall treat in the present chapter, owe their existence to causes of a very doubtful and obscure character; others to an hereditary taint or corruption of the germ; others to poverty and uncleanness; others again to the passions or unlawful sexual indulgences; and others to the improper treatment of exanthematous disease, fever, &c., &c. All, however, are more or less connected with the blood, and whilst the greater part may with justice be pronounced curable, there are some few which medicine can do no more than modify or alleviate; such for instance as have resulted from, or become chronic through the continuous use of mercury, arsenic, and other metallic substances. There are, in fact, some diseases of the skin (as there are in all others) of a character so distressing that very little or nothing can be done even to alleviate. Experience warrants us in saying, however, that wherever such cases are found, they all but universally result from maltreatment. We recollect a young man about twenty-three or four years

of age putting himself under our care some few years since, whose flesh was literally rotting from his bones; and another case of a most amiable lady, the mother of three beautiful daughters. She had suffered from fever, and soon after eruptions appeared upon the skin, for which she was treated for two or three years, not according to the old school only, but also under the Homœopathic school. We were requested to undertake the case, but candidly stated there was little or no hope. She was covered in fact from head to foot with a mass of running sores. We knew the disease, from having seen so much of it. It was *Eczema Mercuriale*, and of which she died after enduring several years of intense mental and physical torture.

The student will not assume that medicine is no science because it fails to reach exceptional cases, but remember that there are certain forces in nature which life is powerless to resist, and that whether they assail us through the slow or immediate action of miasmatic or poisonous gases, irritant and narcotic mineral and vegetable poisons, or are carried into the system directly through the lungs or stomach by the gradual process of ignorant drugging, or by absorption through the skin, as with workers in quicksilver, white lead, copper mines, fork grinding, &c., &c., the result is either a slow process of undermining or sudden deprivation of life. Nature asks no questions as to whether the body is destroyed by accident or design, but acts through the innate powers belonging to the substances with which we are brought in contact. To understand these things is the province of the physician, and he who knows nothing of them, whatever other knowledge he may possess, falls far short of that which he should know, and is unworthy of his profession.

We have felt it necessary to make the preceding remarks in relation to the present chapter, because "cutaneous disease," during the last century, has increased at a fearful rate, and because we desire to "lay the axe at the root of the tree," and impress the necessity of attention to first principles upon all who presume to study and practice medicine. The organic kingdoms contain the constituents of animal bodies, whether in health or disease, and as a late writer very justly observes, "One great and all-important advantage of treatment by such means as fresh infusions and decoctions of wholesome and healing plants indigenous to our soil is, that at the conclusion of the cure, *the general health is greatly amended, and the blood enriched and*

refreshed. While on the other hand, the treatment by preparations of minerals, and those medicines resembling them, is apt to leave the constitution in an unfavourable condition, and unfortified against the insidious attacks of future disease."

Either our teaching is true or false; if true it becomes our duty to work it out zealously and justly, for whatever is true to nature is equally true to God and beneficial to man; and whatever is false to nature is equally false to God and injurious to man. "The most solemn vocation of man, after worship of the deity," says Hufeland, "is that of being priest of the holy vital flame, and an administrator of the highest divine and most secret powers of nature—physician."

Do you think, when you appear before the throne of eternal truth you will be asked, ACCORDING TO WHAT SYSTEM DID YOU ACT; DID YOU COMPLY WITH IT, AND HAVE YOU BROUGHT IT TO PERFECTION? The question will be this:—I MADE YOU STEWARD OF THE WONDERFUL POWERS WHICH I HAVE PLACED IN NATURE, AND OF HER PRODUCTS, TO BENEFIT MANKIND. HOW DID YOU DISTRIBUTE THESE TREASURES? TO THE BENEFIT OF MANKIND, WITH GRATITUDE AND VENERATION? *or, to honour your own name, with selfishness and egotism?* DID YOU, IN YOUR RESEARCHES AND ACTIONS, STRIVE MERELY FOR TRUTH, TO SAVE YOUR BRETHREN, OR WAS IT ALL FOR SELF-INTEREST?

"To him to whom medicine becomes not a religion, it is the most disconsolate, troublesome, and ungrateful art on earth, yea, it must become with him the greatest frivolity and sin, for only that which is done in God is holy and beautifying. HOW IS IT NOW-A-DAYS WITH MANY? NOTHING!—MONEY, NOTORIETY. EVEN WITH THE BETTER SORT OF PRACTITIONERS, the pursuit of the healing art reaches no higher."

Accepting medicine as a science, it follows that its foundation can only be found in nature, and upon this base we desire to stand. We know no other nor can we conceive of any; and to all who aspire to become physicians we say, It is your great privilege to know that you are called to work out a mission with which nothing in life can compare. How sadly are we at fault then when we ignore nature, and where we might relieve or cure, increase the distress we came to remedy. With such practice no man who possesses the smallest modicum of love for his fellow-creatures or his profession can for one moment agree. Nor is it enough to repudiate wrong, and labour

honestly; we must, if we would win respect for ourselves and our profession, be resolved to seek the truth apart from the conventional teaching of men, and having found it, dare against all odds to hold it fast and follow it faithfully to the end. "To know the right and do it is the perfection of true greatness;" and only as this principle is applied to medicine may we hope to diminish the sufferings of mankind.

ERYSIPELAS *(St. Anthony's Fire).*

Description.—To understand this or any other of the many forms of cutaneous disease, now so common, it is necessary that we should know something of the skin of which we propose to treat. It need scarcely be said that all the organs of the body have distinct offices assigned them, and that in proportion to the manner in which they are performed, health and disease are determined. The skin is the natural covering, tunic, or coat, provided by the Creator for the purpose of protecting the numerous internal organs from the contingencies to which they are constantly liable. It acts, also, as a secretory organ or exhalant,—that is to say, it is porous, and exhales or throws off the effete or waste material which is being constantly secreted. It acts, also, as a safety valve for the expulsion of superfluous nutritive matters; and one of the reasons why luxurious feeders and drinkers suffer from gout is, because the skin, either from some predisposing cause or causes, debility or advancing years, cannot excrete or discharge the morbid accumulations with which the blood is encumbered. A strong muscular man or woman can throw off a debauch which, if taken by the aged or debilitated, would destroy life. The importance of maintaining a healthy condition of the skin therefore, must be self-evident to us all; for if the balance of nutrition, secretion, and excretion is destroyed, the whole body will be certain, more or less, to suffer.

Accepting these remarks as hints to be remembered in practice, we would merely add, that whatever disease affects the skin is, more or less, connected with the blood, with the exception of scabies or itch; and, whether it be a simple carbuncle or pimple, or the severer forms of exanthematous or eruptive disease, it is there we must look for the *cause*, and there also for the CURE.

With this view before us, we shall find no difficulty in understanding 'Erysipelas.' It is an inflammatory disease of the blood, and, like nearly all others, may be SIMPLE or MALIGNANT according to the condition of the system affected. Some authors, from the particular appearance of the skin, have given it distinctive names, such as—*Erysipelas Phlegmonodes* (inflammatory), *Erysipelas Œdematodes* (watery), *Erysipelas Gangrenosum* (gangrenous), *Erysipelas Erraticum* (metastasis, shifting). These are nothing more, however, than evidences of the condition of the system, and when understood as such the distinctions become instructive, inasmuch as they enable us at once to form our prognosis.

CAUSES.—There can be no doubt but that some persons are predisposed to the disease from original poverty of the germ, or from a cachectic disposition during gestation, particularly in what has been called *Erysipelas neonatorum*, or "infantile erysipelas." This is admitted: and as other forms of hereditary disease are not developed until life is fully matured, or for years after, we see no reason why it may not be so in this. In constitutions thus predisposed, an accident of the slightest kind, even a scratch, may induce it. Take, for instance, the class of men known in London as "brewers' draymen." In these it is frequently excited by the most trifling mishap. They are in general great drinkers, and the consequence is the blood is constantly predisposed to an inflammatory state. Habitual drinking, like every other excess, reduces vitality and lays the body open to attack; anything, therefore, that robs the blood of the *crassamentum* or red arterialised globules, which float in the serum, and give health to the whole body, may be accepted as a cause. To these we may add poverty, bad drainage, working in hot ill-ventilated factories, sleeping in crowded apartments, &c., &c.

DIAGNOSIS.—The disease has been divided into two distinct varieties; one called "idiopathic" (primary, not dependent upon accident), and the other called "traumatic" (resulting from accidents or wounds). The former generally begins in the face and nose with a slight burning itching sensation, which soon swells, inflames, and puts on a blush of faint red, that rapidly deepens in colour. It is attended with fever, and varies in character from the high inflammatory to the

low typhoid, and may be confined to one side only, or the whole of the face and head may be implicated. The inflammation and swelling may be rapid or slow, trifling or extreme, in proportion to the intensity of the attack or condition of the patient. The latter may attack any part, but more particularly the part injured.

In "Erysipelas Phlegmonodes" the inflammation is not uniformly confined to the face, but sometimes attacks the extremities. It swells rapidly, and puts on the bright scarlet appearance named, about the second day of the fever; it becomes vesicular about the fourth day. About the sixth the swelling and fever subside; and the cuticle begins to desquamate about the eighth day. It rarely terminates in suppuration, but in old people it sometimes extends to the twelfth or fourteenth day.

In "Erysipelas Œdematodes" the inflamed skin puts on a yellowish brown appearance, and the swelling, which has a glossy surface, pits upon pressure. The vesicles are numerous and small, burst on the third or fourth day, and change to dark-coloured scabs. Sometimes the whole head is implicated, and the face so bloated and disfigured, that the eyes are completely buried. Vomiting, followed with *coma* and *delirium*, often supervenes as the disease advances. The debilitated and intemperate chiefly suffer from this.

In "Erysipelas Gangrenosum," if we leave out the 'œdematous' condition of the skin, and add to the 'delirium' and 'coma' gangrenous ulceration, mortification, or sloughing of the parts, we shall do all that is necessary.

In "Erysipelas Erraticum" the inflammation or red blotches are not confined to any part of the body, but follow or succeed each other.

We have introduced, incidentally, "Erysipelas Neonatorum," or "Infantile Erysipelas," and have nothing to add beyond simply stating that it is generally developed soon after birth, and always about the umbilicus or genitals. The parts affected swell, become hard, and present a dark red colour, which gradually extends or spreads over the body, more or less. No better criterion can be given of the general condition of the system than the state of the motions, which are always of a relaxed, fœtid character, accompanied with flatus and colic pains, it continues from *seven* to *fourteen* or *twenty-one* days, and, if improperly treated, terminates in suppuration, gangrene, and death.

"Phlegmonous Erysipelas" sometimes extends or passes from the external to the internal viscera and brain, in which case it generally proves fatal.

Treatment.—*Hygiene.*—There is no disease where this branch of medical science is more needed; and, when we speak of 'hygiene,' we include dietetics, and a knowledge of remote and proximate causes; for without we know the past history of the patient, we can scarcely be in a condition to treat him. That it is purely a blood disease we are well satisfied, whatever the causes may be. Excesses, particularly in drinking, corrupt the blood, and rob it of its vitality. A man may appear comparatively robust, but possess very little muscular or nerve force. There is poverty in the midst of repletion. Another may be really as poor as he looks, that is to say, he may be badly housed and badly fed, pay no attention to the conditions of health, because he may know nothing of them. Erysipelas may develope itself in both, from direct opposite causes. The resisting force of healthy life having been lost, some one of the many external 'forces' ever surrounding us, find them in a condition to be acted upon, and both take the disease. One will have "Erpsipelas Phlegmonodes," or "Œdematodes; the other "Gangrenosum," or "Erraticum." The poverty, half-vitalized blood, and excess of serum predispose to the former; and the poverty, half-vitalized blood, and deficient serum predispose to the latter. How is it possible, unless we understand and treat our patient agreeably with the conditions out of which the disease has arisen, to cure him; and yet this which is of so much importance is scarcely thought of by the majority of practitioners. It is not enough to know the disease is erysipelas. Is it 'idiopathic' or 'traumatic,' or the result of any other cause or causes? This, we say, is the great primary inquiry to be first settled. Look well to the condition of the sleeping and other apartments, ventilation, and the skin: for upon these our success mainly depends.

Treatment.—*Medicine.*—At what stage of the disease are we called?—is now the consideration; and what is the actual condition of our patient? If it is a 'phlegmonous' or œdematous case, clear the intestinal canal with the following:—

℞ Podophyllin ..... One grain.
Leptandrin ..... One grain
Capsicum, Pulverised (Powdered Cayenne) ..... Two grains.
Eupatorin ..... Two grains.

Mix in a little jelly, preserve, treacle, or roast apple, and take at once. This done, order the feet to be put into warm water, and during the time (which should not exceed five or six minutes,) let them be washed very clean. The surface of the body should also be washed with soap and water, or sponged all over, at the same time.

The following should now be prepared:—

℞ Eupatorium Perfoliatum (Boneset Herb, dry) .. Half ounce.
Capsicum, pulverised ..... Five grains.
Lobelia Seed and Herb, pulverised ..... Twenty grains.

Mix and infuse in a full pint of boiling water, let it stand from twenty to thirty minutes, after which strain, and give in wineglassful doses every five minutes. Before it is all taken, *emesis* or vomiting will have taken place, accompanied with diaphoresis or sweating. To bring up an action upon the skin and relieve the stomach, is to do a great deal towards curing your patient, for inasmuch as the stomach is the centre of action with which every organ of the body sympathises, the skin is the safety valve through which the morbid or effete materials are eliminated or thrown off continually, and more particularly during the progress of disease and process of medication.

It will be seen from these remarks why we treat the case this way, and the objects we seek to obtain. The inflammatory condition of the blood, which is the active cause of the disease, must be removed, and there is no process so effectual as that which we recommend. Should the medical attendant think proper to prescribe a vapour or spirit bath, he may do so with great advantage; the means prescribed, however, will meet every indication of the case; and, as it is much easier and freer from danger, we fancy it will be not only more convenient, but better understood by those whose duty it is to carry out the orders of the physician.

Presuming that the stomach has been vomited, the skin acted upon, and bowels attended to, (no matter whether relieved for the present,) we must now attend to local means. To remove the external or inflammatory condition of the skin, prescribe the following:—

℞ Ulmus Fulvæ, Pulverised (Slippery Elm Powder)

Sufficient to form a cataplasm or poultice, mix with hot water, place it between two soft cotton cloths, sufficiently large to cover the inflamed part, fasten it on with a bandage or ordinary handkerchief, and give freely of the following:—

℞ Ulmaria Root, Pulverized (Queen of the Meadow, in Powder) ..... Two drachms.

Infuse in a pint and half of boiling water, let the powder settle, strain, sweeten with lump sugar, keep it warm by the fire, and give in wineglassful doses every quarter of an hour until the whole is taken.

The poultices should be removed as often as they become dry, and others applied in their stead; and if the parts affected are bathed with warm milk and water each time of their removal and application, it will afford much relief.

The medical attendant will bear in mind that we are now treating 'phlegmonous' and 'œdematous' erysipelas, and will understand our object in doing so. The practice pursued by Mr. Lawrence, while we acted as dresser under him in St. Bartholomew's Hospital, London, some years since, in all traumatic cases was to incise or make two openings the whole length of the part affected. The wisdom of this we never could see; our duty, however, at that time was simply to attend orders, nothing further.

It may happen, in spite of our best efforts, that the disease may pass into the suppurative or gangrenous state. We say "it may happen," but if it does it can only be in cases of the most malignant character, or where the treatment 'hygienic' and 'medical' have both been at fault. "Erysipelas Grangrenosum" is doubtless a most frightful form of the disease; if the fever with which it is ushered in, however, is treated agreeably with the directions given, mortification, "gangrene sloughing" (death of the parts), or by whatever name we may chose to designate it, will rarely supervene.

Let us presume we have a case of the kind, that is to say, that some one without means, and ignorant of the consequences, has paid no attention to the sufferer, and that the disease has passed into this state from neglect, or from improper treatment, no matter which, the treatment already recommended must also be carried out in this, with the addition of the following:—

℞ Hypericum Perforatum (St. John's Wort, dry) ... Two ounces.

Infuse in two quarts of boiling water, foment the parts affected freely, cover with flannels saturated with the same, and change as often as they become cool.

This remedy will be equally beneficial in "Erysipelas Erraticum," and indeed to any inflamed surface at any time.

The points to remember are, that the disease, in every case, is caused entirely through poverty of the blood, and that whether from repletion, depletion, bad ventilation, or germinal deficiency, the rational method of cure consists in raising the system up to a higher state of vitality; or as the very celebrated surgeon, Mr. Skey, has it, "raise the body above the level of the disease." We presume, then, that the stomach, intestinal canal, and external condition of the skin have been attended to, and that we are treating the disease in any one of the forms to which we have directed attention, in either case, the same end must be kept in view. The blood must be renewed. Is it in the inflammatory or phlegmonous condition when you are called to see it? Follow out the directions. Is the œdematous or watery condition superadded to the inflammatory? Follow out the directions. Is it in a state of suppuration and discharging freely? Follow out the directions. Is it in a state of gangrene or mortification? Follow out the directions; that is to say, remove whatever morbid matters are in the stomach and intestines; keep your patient clean, and well supplied with pure air and good nutrition. You must renew the blood, or you cannot cure your patient. We presume, we say again, that this is understood and being carried out. Prescribe the following:—

℞ Tincture of Myrrh, compound ..... Half ounce.
Tincture of Hydrastis Canadensis ..... Half ounce.
Pure Spring Water ..... Seven ounces.
Mix, and give a tablespoonful three times a day, between meals.

For a beverage, instead of tea or coffee, prepare and give the following:—

℞ Convalescent Powder.

Infuse one teaspoonful in a pint of boiling milk, let the powder settle, pour the liquid into a teacup as ordinary tea, and use freely in the same way.

In the treatment of "Erysipelas Neonatorum" (infantile erysipelas) the blood must be understood and, as in all other cases of the kind, means taken to improve it. Subdue the inflammatory condition of the skin, and attend to the general health. Bathe the parts affected with warm milk and water freely, and apply the "ulmus powder" or slippery elm, as a cataplasm or poultice, changing it as often as necessary. In addition to these, prescribe the following:—

℞ Tincture of Hydrastis Canadensis ..... Half drachm.
Cinnamon Water ..... Half drachm.
Podophyllin ..... Two grains.

Mix, shake well up, and give four drops three times a day, in a little simple syrup.

Nourish the child well; if with a good breast all the better; if not, by the best artifical means. See "Index," "Food for Infants;" see "Index," also, "Diet for Invalids," and "Convalescent Drinks."*

ERYTHEMA (*Inflammatory Blush*).

Description.—If the student has made himself master of 'Erysipelas,' or in other words, if he has carefully read it and satisfied himself that the different forms of the disease are but so many evidences of its character,—that they all have a common origin, and that the distinct 'character' of each results from some constitutional difference, he will have no difficulty in understanding this. He will see that *Erythema* is a milder type of the same disease, and know that its cure is effected by similar means. This knowledge forms the base of all successful practice, and he who is without it can scarcely be said to understand anything of the science of healing. There are several varieties of the disease, which every physician should know, not that any therapeutical advantage is connected with it, for what will cure one will cure the whole. It is well, however, to be able to distinguish them, even though there may be no great practical good in it. The principal are *Erythema papulatum*, *Erythema tuberculatum*, *Erythema nodosum*, and *Erythema centrifugum*. The first occurs in young persons of either sex, in small round inflammatory patches, about the upper extremities and chest; the second is distinguished by their extent and time of continuance; the third by their raised appearance and rounded or oval form, which varies from the size of a fourpenny piece to a shilling or half-crown, and from the change of colour which the 'patches' put on, from red to blue; and the fourth from the 'patches' being principally confined to the face.

*To all engaged in the practice of medicine, we recommend the careful study of 'erysipelas.' It is full of instruction, and whoever will take the trouble to master it will find the key to unlock the door of knowledge to almost every other disease.

Causes.—The seat of the disturbance is in the blood: anything, therefore, that sets up a preternatural action, in an otherwise healthy body, becomes a proximate cause. Gastric or intestinal irritation from drugs, such as copaiba, cubebs, and turpentine; improper food; or through drinking cold water whilst in a state of perspiration; or from shell fish, such as crabs, mussels, lobsters, &c. These and others of a like character may, as we have said, become the exciting or proximate cause, while others, slower and more continuous in their action, may be considered as the more remote, such as gonorrhœa, leucorrhœa, obstructed or difficult menstruation, uric acid in the blood, hot ill-ventilated workshops, irritating applications to the skin, &c., &c.

Diagnosis.—Red patches upon the skin, lighter and more superficial than *Erysipelas*, with less swelling, little or no pain, and in the more severe cases, slight pyrexia or fever.

Treatment.—*Hygiene.*—Attend to the general conditions of health, and bathe the surface of the skin every night, at bed time, in the following:—

℞ Carbonate of Soda (common washing Soda)..... Two drachms.

Dissolve in half gallon of boiling water, and when cold, use freely with a strong soap lather, after which rub the skin dry.

Treatment.—*Medicine.*—

℞ Podophyllin	Three grains.
Sanguinaria	Four grains.
Fluid Extract of Clivers (Galium Aparine)	Half ounce.
Spring Water	Twelve ounces.

Mix, shake up each time, and take a tablespoonful three times a day.

In all cases where a mineral poison of any kind, or improper food, has induced gastric irritation, if there is no organic disease of the heart, or other constitutional objection, an emetic as follows will afford relief at once.

℞ Eupatorium Perfoliatum (Boneset herb)	One ounce.
Lobelia (crude herb)	One drachm.
Capsicum, pulv. (Cayenne)	Ten grains.

Infuse in a full pint of boiling water, cover and let it stand a quarter of an hour, after which, strain and give in wine glassful doses every ten minutes, until the stomach is freely vomited.

In cases where copaiba, cubebs, or drugs of an irritating character have been the exciting cause, it will be necessary to lay them aside, and drink freely of mallow, linseed tea, or other demulcent drink. These and a cessation from the active cause or causes, will generally do all that is necessary; should it not do so, however, resort to the emetic and other medicine.

There is little or no danger even in the worst form of the disease; whatever state it is in, it is an evidence simply of vascular disturbance, connected more or less with the stomach, and depending for its benign or severe character upon the general condition of the patient,—the time of its incubation, and the active or remote causes which induced it. It is this knowledge which gives us the power of curing, because we see morbid irregularity as it is,—the end we seek, and the means to attain it.*

URTICARIA *(Nettle Rash).*

Description.—This disease is named after the common stinging nettle, because the skin puts on a similar appearance to that which it assumes after handling the leaves, or otherwise being in contact with it. Like *Erythema*, it has its degrees of virulence, and may be mild and ephemeral, or severe and enduring, according to the condition of the patient, and causes upon which it depends; or in other words, it may be *acute* or *chronic.*

Causes.—In many cases it is difficult to discover what the causes really are. Anything, however, that sets up an irritation upon the skin by contact, working in brass, iron, acids, carbonates, sulphates, salts, &c., may become an exciting cause; or it may be set up by causes similar to those of *Erythema;* by eating mushrooms, cucumbers, salads, tainted animal food, or by drinking cold water whilst in a state of excitement, &c., &c.

We have said that it may be either 'acute' or 'chronic,' and would observe, that whilst the former generally results from gastric or intestinal irritation, the latter more commonly results from continuous

* The student will bear in mind that the medicine prescribed is for an adult, and will regulate the quantity agreeably with the age or requirements of the case. He will also bear in mind that cutaneous disease, like any other, may be accompanied with complications, and that these require attention.

external contact with the agents named, or from the use of calomel, arsenic, sulphur, iron, or some one or more of the metallic and mineral poisons so frequently prescribed as medicine.

Diagnosis.—We scarcely think it necessary to point out the finely drawn distinctions which nosologists have from time to time introduced; to pass them over without notice, however, might be to neglect some one of the lesser considerations to which some practitioners attach so much importance, and expose ourselves to censure. In the "Nomenclature of Diseases" lately issued by the Royal College of Physicians, London, no less than six distinct varieties of *Urticaria* are given. For all practical purposes, however, the two following will be sufficient:

1st.—*Urticaria Evanida.*—Small elevations resembling the stinging of nettles, in some cases suddenly appearing and passing away again just as readily. In others they are accompanied with swelling, which may continue for several days or months, appearing and disappearing at intervals. In some cases long wheal-like eruptions appear, as if the parts had been lashed with a cord, accompanied with great irritation and itching, generally disappearing during the day, and returning again towards night.

2nd.—*Urticaria Febrilis.*—Slight febrile disturbance, pricking, tingling sensations, followed with an eruption upon the shoulders, loins, and thighs, often extending to the knees and legs, of a blotchy character, surrounded with a deep red border, and most intolerable itching, appearing and disappearing at intervals; and, under proper treatment, subsiding altogether in the course of a week or ten days.

Treatment.—*Hygiene.*—See *Erythema*, page 226, attend to the conditions of health, and bathe the surface of the body all over, as there recommended, at bed time.

Treatment.—*Medicine.*—If the eruption comes on suddenly, and has been caused by improper food, mineral drugs, or gastric or intestinal irritation, see "Emetic" as in *Erythema*, and give as directed. Remove the offending matter from the intestines, and carry the exciting or morbid accumulations out of the blood. See 'Treatment'—*Medicine*, in *Erythema*, and in addition, prescribe the following:—

℞ Galium Aparine (Clivers, herb, dry) ..... Half ounce.

Infuse in a half-pint of cold water, let it stand twenty-four hours, express and drink cold and unsweetened, at bed time, directly after the bath, every night.

Avoid arsenical, mercurial, and all mineral preparations, whether prescribed for internal or external use. They do but aggravate the evil, and render the removal of the disease more difficult. In fact, the chronic form owes its existence and continuance oftener to this cause than to any other.

In addition to the medicines prescribed, where the disease is of a chronic and tedious character, it will be necessary to administer the "Medicated Vapour Bath;" for which see "Appendix" and "Index."*

ROSEOLA *(Rose Rash).*

Description.—If it were not for the necessity of understanding the numerous forms of cutaneous disease now so common, *Roseola* might be accepted as of the same type as the last, and treated exactly in the same way. Beyond the fact that it is important to distinguish and point out the characteristics of each, there is but little practical utility. It is divided into *Roseola Astiva*, *R. Autumnalis*, *R. Symptomatic*, and *R. Annulata.*

Causes.—Anything that induces or sets up a disturbance in the stomach or intestines, vascular irritation from excitement, severe exercise, and drinking cold water whilst in a state of perspiration. It is sometimes epidemic; and it is not uncommon during the invasive stage of small pox, to find it preceded by a rash so exactly similar that it is difficult to distinguish one from the other.

Diagnosis.—Slight fever; deep red or rose-coloured irritable patches, appearing and disappearing upon different parts of the body; in some cases passing off readily or continuing only for a day or two, and in others lasting for a week or more. *R. Astiva* is most common to children, especially during dentition, where the stomach and bowels are neglected, or where the conditions of health are not attended to. It may be accompanied with convulsions, but this is rather to be considered as one of the complications, than as belonging to the disease; the same may also be said of inflammation in the throat which sometimes accompanies it. The rash is generally severe when

* See note to *Erythema*, page 227, and call to mind the necessity of attending to the complications as they arise.

these complications occur, extending from the face and neck to the whole body. *R. Autumnalis* is also common to children, but less severe. *R. Annulata* is distinguished from the two former by the round or ring-like form of the eruptions, which generally commence on the chest, and gradually extend to the abdomen and lower extremities. Like *Urticaria* or nettle rash, it may be *acute* or *chronic*, according to the condition of the patient. *R. Symptomatic*, as the name implies, is when the "rash" is a symptom of some other disease.

Treatment.—*Hygiene.*—Attend to the conditions of health, and give the bath as recommended in *Erythema* and *Urticaria*, pages 226 and 228.

Treatment.—*Medicine.*—What is the state of the stomach and bowels? This is the first consideration, for if these and hygiene are attended to there will be little else to trouble about. See treatment of *Erythema*, page 226, and follow the directions there given. Note the complications also, and if convulsions supervene, turn to "Index," see "Convulsions," and treat it, regardless of the "rash," for this is nothing more than the effect of a cause which we are called upon to remove; nor is it too much to say that whether we look to the more severe complications of *Rubeola*, *Scarlatina*, and others of a similar character, or to the milder types now under consideration, they do but represent a unity of character which cannot be mistaken, except by those who are content to scan the surface only.

ECZEMA *(Running scall, Crusta Lactea).*

Description.—This is a disease of quite a different character from any that we have yet introduced. It is an eruption peculiarly tedious, and in many cases very difficult to cure. It is divided into *acute* and *chronic;* and subdivided into *Eczema Simplex*, *E. Rubrum*, *E. Impetiginodes*, and *E. Mercuriale.*

Causes.—*Proximate.*—Anything that tends to corrupt the blood; improper treatment of acute diseases, particularly those of a zymotic character; contagion; arsenical, mercurial, and mineral drugging; working in metals, mineral salts, acids, &c. *Remote.*—Hereditary transmission, prurigo, leucorrhœa, old gleets, blennorrhœa, &c., &c.

Diagnosis.—*Acute.*—Eruptions of small watery vesicles, crowded together on different parts of the body; severe itching, smarting, and exudation of thin acrid matter, which in a few days form into yellow or green scabs.

Diagnosis.—*Chronic.*—Presumed by some writers to be a sequelæ of the acute form of the disease, but this is an error, which experience has long since taught us. Skin generally much inflamed, vesicles numerous, extensive, and reproductive; abundant discharge, accompanied with intense itching; sometimes there is little or no discharge, but a dry scabby surface, full of cracks or fissures, which extend to the thighs, anus, vulva, eyes, face, toes, and fingers. We have seen, in fact, the whole body covered from head to foot, and the patient literally rot alive.

Treatment.—*Hygiene.*—The patient should be supplied with pure air, plenty of clean inner clothing and bed linen. Eat no butter, nor fat, nor salt meat of any kind. Use boiled or roast apples instead of butter, and be careful to obtain for external and internal use, filtered rain water, or in its absence distilled or pure spring water. Ripe pears, apples, raspberries, strawberries, or any of our indigenous fruits may be used freely. And as a beverage with the meals, instead of tea or coffee use the *Geum Urbanum* (sweet avens). Prepare it strong as ordinary tea, adding a little milk only, but no sugar. Meat, potatoes, good wholesome bread, tapioca, cabbage, cauliflower, roast or boiled fowl, rabbit, &c., may be all used freely. A glass or two of good port wine may be taken with the dinner, and a little gin and cold water, or whiskey and cold water, at bed time; but no beer, porter, nor malt liquor of any kind.

Treatment.—*Medicine.*—This is a disease where the "Medicated Bath" is indispensable. Prepare it as follows:

℞ Arctium Lappa (Burdock Herb, dry) ..... Three ounces.

Infuse in a gallon of boiling water, and when about blood warm, throw into a pail or pan, after which let the patient stand with his feet in it, whilst the attendant with a large sponge well bathes the surface of the skin from head to foot, using glycerine soap at the same time. In all acute cases this should be done every alternate night.

For internal use prescribe—

℞ Hamamelin ..... Twenty grains.
Stillingin ..... Ten grains.
Geraniin..... Ten grains.
Filtered Rain Water ..... Twelve ounces.

Mix, shake up well, and take a tablespoonful three times a day, between meals, and at bed time.

After the medicated bath prescribe the two following medicines:—

℞ Compound Powder of Leptandrin ..... Two grains.

Take in a little roast apple.

℞ Eupatorium Purpureum (Queen of the Meadow, herb) ... Half ounce.

Infuse in a full half-pint of filtered rain water (boiling), let it stand covered, when cold strain and drink without milk or sugar, immediately after the powder.

In no single acute case that has come under our notice during the last twenty years and more, and they have been very numerous, have we failed to cure it by the means now recommended. We cannot say the same of chronic cases, however; on the contrary, we have found them exceedingly tedious, and in *Eczema Mercuriale* we have failed to do more than relieve, after months of medication. The disease, if not caused by metallic and mineral drugging, is as amenable to medicine as any other; but where the blood has been chemically changed, a compound disease created, and the cancellous structure of the bone, and general system has become saturated with the poison, the cure is all but hopeless. We insert the following as a foot note, and whilst doing so we ask ourselves, truly in sorrow, how it is possible for any acute case of *Eczema* to escape becoming chronic after passing through such treatment?*

* "TREATMENT.—Mineral Acids administered internally, with one of the bitter infusions, alkaline lotions externally. An alterative aperient should be given at bed time occasionally. In obstinate cases ♏iij. to ♏v. of liquor arsenicalis may be prescribed. The sulphur bath or baths containing three ounces of the sulphide of potassium may be used with advantage. Vapour baths, or the vapour douche may also be recommended. The itching and smarting are best allayed by the zinc ointment mixed with spirits of wine (ung. zinci. ℥ i, spt. vin. rect. ℥ i,) smeared over the surface, and renewed once or twice a day, or by simple cold water dressing. A handkerchief moistened with a teaspoonful of chloroform, placed near the seat of irritation, and covered with the bedclothes, often allays the smarting. A solution of nitrate of silver (ten grains to the ounce) will sometimes afford great relief."—G.

"Hooper's Vade Mecum," 1864, page 704; by W. Augustus Guy, M.B., and John Harley, M.D., F.L.S., Lon., both physicians to King's College Hospital.

In chronic cases, that is to say, all such as have become incorporated or settled in the system, whether from contact with metals, metallic salts, mineral acids, mineral drugs, syphilis, or causes of a similar character, our only hope lies in gradually eliminating the irritating particles from the blood and supplying it with a purer and more recuperative power. Whatever the causes have been, or are, they must be made out and removed. There is no good to be got by disguising the truth, and anything we may do by the means ordinarily employed will only stamp the evil deeper. Prescribe the following medicated bath.

℞ Hypericum Androscœmum (St. John's Wort, Tutson herb, dry) ..... Three ounces.

Infuse in a gallon of boiling water, and well bathe the surface of the skin as already recommended. Do this at least three times a week; and once a week prescribe a "Medicated Vapour Bath," for which see "Index."

To allay the irritation, prescribe the following ointment:—

℞ Bayberry Wax ..... Two ounces.
Olive Oil..... Half ounce.
Sassafras Oil ..... Half a drachm.

Gently simmer, and stir until well incorporated, let it cool, and apply to the parts affected every morning.

Prescribe the following for daily use:—

℞ Saponaria Officinalis (Soap Wort, dry root) ..... One ounce.
Arctium Lappa (Burdock, dry root)..... One ounce.
Liquorice root, dry ..... One ounce.
Phytolacca Decandra (Poke, dry root)..... Half ounce.

Let the roots be well crushed, put them into an ordinary porcelain lined saucepan, pour on five pints of filtered rain water, and simmer down to three, express the liquid, when cold, through a tincture press, let it stand twenty-four hours, strain off clear, and add—

℞ Tincture of Stillingin ..... One ounce.

Keep in a cool place, and take one tablespoonful three times a day.

Should it be necessary to relieve the bowels occasionally (although hypercatharsis or relax must be carefully avoided), prescribe occasionally at bed time,—

℞ Compound powder of Stillingin ..... Two grains.

Should any complications exist, or occur during the treatment, it will be necessary to attend to them. It will be also necessary to

bear in mind that only in proportion to the normal or regular action of the different organs of the body is it possible for the blood to renew the diseased parts. Consider this, and at the same time remember that whether we administer food or medicine, the same end should be constantly in view. All our efforts must be considered as auxiliaries or helpers of nature. He who does less neglects one of the great primary principles of healing; and he who does more commits a blunder which no future effort can remedy.

HERPES *(Tetter).*

Description.—This is another eruption to which the skin is liable, and like all others, more or less dependent upon the blood. It assumes a variety of forms, and is named accordingly,—*Herpes Phlyctenodes*, *H. Labialis*, *H. Circinatus*, *H. Iris*, and *H. Zoster*.

Causes.—It is not confined to any period of life. Youth and age, male and female, are alike subject to it, although it more frequently attacks the young than old. Obstruction of the circulation through cold, catarrh, inflammation of the mucous tissues, debility, gastric disease, &c.

Diagnosis.—Small patches or groups of vesicles filled with water, which soon become tinged with a yellow fluid-like matter, discharge and form a scab, which shortly after falls off, leaves an inflamed surface, and readily heals. *Herpes Phlyctenodes* is the name given to the disease in its sporadic form, that is to say, where it is not confined to any particular part. *H. Zoster*, or Shingles, is the name given to a form of the disease which surrounds the body, beginning sometimes about the middle, at other times just below the nipple, to the lower part of the back or groin. *H. Labialis* is the name given to the disease when it attacks the lips. *H. Circinatus* is simply ringworm, and *H. Iris* when it assumes a circle of rings of different colours. In so far as the cure is concerned, these names have no practical value; as a means to distinguish the varieties, however, it is necessary to know them.

Treatment.—*Hygiene.*—Look to whatever stands in the way of

cure. Attend, above all things, to cleanliness; call to mind that the obstruction in the capillary circulation, upon which the healthy condition of the skin depends, must be removed, and that the diseased particles must be renewed by fresh deposits from the blood.

TREATMENT.—*Medicine.*—What is the condition of the stomach and bowels?—look to these, attend to hygiene and the skin, and the disease in nearly all ordinary cases will cure itself. In the more severe cases, however, give the "Medicated Bath" at bed time, as prescribed in *Eczema*, page 231; after which the following medicine:—

℞ Thalapsi Bursa Pastoris (Shepherd's Purse, dry herb), One ounce.

Infuse in a pint of boiling water, cover, let it cool, and drink without sugar or milk, in wineglassful doses, every five minutes until the whole is taken.

For a daily medicine prescribe—

℞ Fluid Extract of Galium Aparine (Clivers) .... One ounce.

In teaspoonful doses three times a day, and once a day the following:—

℞ Compound Powder of Leptandrin..... ..... Two grains.

In all cases of disease we must bear in mind the general condition of the system, and age of the patient. The quantity recommended in the present and all other cases, unless particularly noticed, is for adults, and must be regulated to suit the age and strength of the patient, in the sense in which food should be; and wherever the skin is excoriated or irritable, a little of the "ointment" recommended in *Eczema* may be applied during the day, or after the "Medicated Bath." In few cases, however, must we expect anything from the use of ointments, beyond the effect produced by softening the cuticle, and separating the effete or worn out material from the new. The worst cases, if treated with regard to the rules laid down, generally yield in the course of a few days, or rarely exceed a fortnight. The medicine and bath should be continued so long as any signs of the disease remain, and even when it has to all appearance gone, nor should the skin be neglected at any time. In *Herpes Circinatus* (ring-worm), and *Herpes Iris*, the parts affected, independently of general means, may be slightly touched with "Tincture of Sanguinaria" or blood root, night and morning. See also "Index," "Celandine Ointment."

MILIARIA *(Miliary Fever).*

Description.—This disease is distinguished from the preceding by the fever that invariably attends it, profuse perspiration, peculiar sour odour and cough, and from the fact that it is attended in severe cases with considerable danger. Hufeland says, "The relation which the disease bears to the history of mankind and the act of healing, deserves notice. We find no mention of it in antiquity, nor in the earlier periods of modern times. It first appeared in the seventeenth century, at the time when the diaphoretic method of curing fevers prevailed, especially in those countries where feather beds are used." Presuming this to be correct, *Miliaria* should be one of the most common eruptive fevers of the age. That it was much more prevalent in Europe a century or so ago we very well know, and that "feather beds" have little to do in it we also know, for if it is found anywhere it is rather where there are no "feather beds" than where there are; and as to its not being mentioned by ancient authors, there is nothing to surprise us in this, seeing that disease changes its character with the habits of mankind. The plague, for instance, which was once so common, is now no more, and what was originally known as "jail fever" has taken the form of typhus, and is known under that name. The same may be also said of ague or intermittent fever, once so common in the low lands of Lincolnshire, Kent, and Somersetshire. Apart from these facts, however, there can be no doubt that *Miliaria* was originally considered as a symptom, rather than as a disease, and in this light we find it represented in the "Nomenclature of Diseases," by the Royal College of Physicians.

Causes.—Bad ventilation, working and sleeping in hot rooms, workshops, and mills. A low state of vitality, want of attention to the skin, rheumatic diathesis, excessive cutaneous evacuations, copious menstruation, relaxation, mental anxiety, puerperal fever, gastric and intestinal irritation, &c., &c.

Diagnosis.—Small vesicular elevations, resembling millet seed, covering the whole body, but particularly the neck and chest; sometimes forming, by union, vesicles containing thin offensive serum. The eruptions are preceded by debility, depression of spirits, tightness on the chest, cough, fever, and great restlessness. After continuing

for a few days, profuse perspiration, of a sour rank odour, supervenes, accompanied with an irritable condition of the skin, and in a few days more the vesicles break, form into crusts, and desquamate or scale off. The fever generally continues for some time after the eruptions disappear, hence its termination cannot be determined by particular critical periods, as others. If it is of a mild character, and subsides soon after the appearance of the eruptions, we may consider the case favourable; if sweating continues, however, or if the eruptions suddenly disappear, and *vomiting*, *coma*, and *delirium* supervene, we may conclude it hopeless.

Treatment.—*Hygiene.*—Attend particularly to ventilation and cleanliness, as in fever of every kind; note the efforts which nature is making to rid itself of the morbid accumulations, and assist her to do her work, that is to say, sustain the strength of the patient by every possible means. It was not, as Hufeland supposes, the "diaphoretic treatment" that was altogether at fault, but the want of hygienic knowledge. Originally, it was the practice to rigidly ignore ventilation by keeping the doors, windows, and every cranny and nook through which the air was likely to find its way, closed, so that the patient was literally poisoned second-hand. Nature, through *Diaphoresis* and the excretory channels, seeks to rid herself of the morbidity; and if we would cure the disease, we must help, not obstruct her. Free ventilation, a clean skin, and change of bed linen as often as possible, are the great requisites. Here we must begin, and here end; nor can we fairly hope for success where these necessary and important conditions are neglected.

Treatment.—*Medicine.*—

℞ Geraniin ..... Ten grains.
Eupatorin Perpu ..... Ten grains.
Compound Powder of Leptandrin ..... Ten grains.

Divide into twenty-one powders, and give one twice or three times a day, with the following medicated skin bath :—

℞ Achillea Millefolium (Yarrow, herb, dry) ..... Three ounces.

Infuse in a gallon of boiling water, and use as directed in *Eczema*, page 231.

As a daily drink prescribe—

℞ Eupatorium Purpureum (Queen of the Meadow, herb, dry) ..... One ounce.

Infuse in a quart of boiling water, let it stand until cold, sweeten with lump sugar, and drink throughout the day. There is no danger of taking too much, use it therefore as freely as possible.

In the treatment here recommended we see exactly what we are called to do. The blood is surcharged with a morbid poison, which is manifested in the fœcal excretions, and in the exudations from the skin. The simple 'millefolium' acts immediately as an antiseptic diaphoretic. The powders carry the morbid matter by a gradual process from the prima viæ; and the infusion of Eupatorium Purpureum subdues the fever, and prevents the tendency to *convulsions*, *coma*, and *petechiæ*, by removing from the serum the irritating particles which corrupt the blood and disturb the brain.

In addition to the medicines the patient may take, after the first five or six days, three or four half-glassfuls of good port wine and water daily, increasing them to glassfuls as the strength improves; or if good port wine cannot be obtained, or if he has a conscientious objection to it, see "Index," "Convalescent Wine," and take in its stead. See "Index" also, "Diet for Invalids," and use as directed.

Should convalescence be tardy, and the patient continue weak and mentally depressed, change of air, scenery, and good society, will do what nothing else can; and should it be necessary to improve the appetite, prescribe—

℞ Tincture of Hydrastis Canadensis (Golden Seal)..... Half ounce.
Tincture of Capsicum (Cayenne) ..... Half drachm.

Mix, and take from ten to fourteen drops three or four times a day, in a teaspoonful of cold water.

It is important to bear in mind that during inflammatory disease and fever, *tonics* are not admissible until the primary or active stages are subdued. We may also remind the medical attendant that for the bronchial irritation or cough so common in this disease, there is no remedy equal to our patent "Pulmonary or Cough Lozenges."

RUPIA *(Atonic Ulcer).*

Description.—This is a disease resulting from extreme poverty of the blood. It is divided into *R. Simplex*, *R. Prominens*, and *R. Escharotica.*

Causes.—A low state of vitality, *cachexia* or vitiated condition of the blood, from impure and deficient nutrition, exhaustion, &c.

Diagnosis.—A distinct vesicular eruption, surrounded with an inflamed base, containing a sanious fluid, which subsequently ulcerates and forms into thick dry laminated scabs, sometimes in the form of a cone, which is easily rubbed off, and readily reproduced.

Treatment.—*Hygiene.*—Good food and plenty of it, cleanliness, fresh air, and gentle exercise.

Treatment.—*Medicine.*—See "Medicated Vapour Bath," and prescribe it. Soften and protect with the "Soothing Ointment" (see "Index"). As a daily medicine, prescribe—

℞ Compound Sarsaparilla (fluid extract) .....Eight ounces.
Tincture of Cayenne.....Half-a-drachm.

Mix and take a small tablespoonful four times a day. Use roast or boiled apples freely, and plenty of good beef tea. See also "Index"—"Diet Drink," and use freely.

There is but one secret in the cure,—Renew the System. It is important to remember that whatever causes stand in the way of recuperation, it will be necessary to remove them. It is of little use to prescribe "good food and plenty of it," to a man whose stomach, liver, and internal viscera are in a state of atrophy, and incapable of assimilating it. We must fit the system to receive it before it can become the agent of the renewed life we seek to re-establish.

ACNE *(Copper Nose).*

This is a disease of marked prominence, but not always represented by the synonym *Copper Nose.* There are in fact four varieties of *Acne* given in the "Nomenclature of Diseases," and in some earlier authors as many as five. We name the following:—*Acne Simplex*, *A. Indurata*, *A. Rosacea*, and *A. Punctata.*

Causes.—"Good living," or excesses in eating and drinking, hereditary transmission, smoking, particularly in constitutions predisposed to a phlegmonous condition of the blood; parturient exertion, uterine disease, critical period or change of life, &c.

Diagnosis.—*Acne Simplex* in its primary form is most commonly seated upon the cheeks, temples, forehead, back, upper part of the chest, and in some cases upon the neck and shoulders. It is not often marked by any particular constitutional disturbance, although we now and then meet with subjects more or less affected with irregular arterial action, and chronic bronchial irritation. The eruptions are in the form of isolated pustules, having a hard red base, terminating in indolent chronic tumours.

Acne Indurata is distinguished from the last by the union of the pustules, and their formation into large indurated tumours.

Acne Rosacea is distinguished by its position and appearance. It represents a red or rosy colour of the skin, and is generally seated upon the nose, sometimes extending to the cheeks. It is more common in females at a particular period of life.

Acne Punctata is distinguished by the small black head or point found on the top of the pustules.

Treatment.—*Hygiene.*—Consider what the causes are and lay them aside. In its simple and even chronic form it is curable, if the patient has courage sufficient to resist the habits which give rise to it. Smoking and drinking, whether spirit, beer, porter, or ale, should be all dispensed with, and their place supplied by one of the simple "Home-made Beverages," recommended in "Appendix."

Treatment.—*Medicine.*—In *Acne Rosacea* the following may be used with advantage, as an external application :—

℞ Armoracia (Horse-radish root, green).....Two ounces.

Prepare as if for a cold roast beef collation, and infuse in a pint of boiling water, let it stand covered up twenty-four hours, after which express, bottle, and add half an ounce of pure rectified spirits of wine. Take a piece of fine cambric or linen, large enough to fold into a compress of four parts, saturate it with the infusion, and apply to the part affected every night, cover with oiled silk, fasten with a handkerchief or convenient bandage, and let it remain until morning. The same may also be used in *Acne Simplex* and *Acne Indurata*.*

The surface of the skin should be well sponged all over every

* This preparation may be used with advantage internally, as follows :— Prepare in the same way, adding simply two ounces of lump sugar to the pint. Take a wineglassful night and morning,

morning with cold water, using at the same time glycerine soap, and once a week an ordinary vapour bath should be taken. As a daily medicine prescribe—

℞ Stillingin ..... Ten grains.
Leptandrin ..... Eight grains.
Podophyllin ..... Three grains.

Mix and divide into twenty-one parts, and take one part three times a day, in a little roast apple. Use stewed, roast, or boiled apples instead of butter, and little fat or oily food of any kind.

FARUNCULUS *(Boil).*

Description.—Boils have been common in all ages, and have proved in some periods extremely fatal. The plague 'boil' was considered as a sure prognosis or evidence of fatality in that fearful disease.*

Causes.—Poverty of blood from deficient and impure nutrition, obstruction of the capillary circulation, debility, cachexia or vitiated vitality, age, continued mental anxiety, &c.

Diagnosis.—Hard circumscribed tumours, sometimes passing readily into suppuration, and slowly discharging; at other times extremely indolent, rarely terminating in resolution, irritable, troublesome, and often very tedious; continuing to harass and distress the patient for weeks. They are situated most commonly in the neck, back, and nates, and in some cases upon the upper and lower extremities. The carbuncle is simply a boil of larger size, and where neglected, often attended with extensive sloughing.

Treatment.—*Hygiene.*—Speaking of *Rupia*, we said, "there is but one secret in its cure,—RENEW THE SYSTEM." The same recommendation may with propriety be applied to this, not that the cachectic condition is so extreme as in that disease, but in all cases of the kind an abnormal or vitiated character of the blood is

"*Within the last few years the mortality from carbuncles has risen in the metropolis from one, two, three, or four per million per annum, from 1840 to 1846; and from seven to thirty-six per million per annum, in the interval from 1847 to 1854.†

† Hooper's "Physicians' Vade Mecum," 1864.

set up, and unless the vitality has a re-cuperative force sufficient to throw it off, it cannot fail to terminate in a gradual declination of physical and mental energy. See 'Treatment'—*Hygiene, Rupia*, page 238, and apply the same.

TREATMENT.—*Medicine.*—See "Index," "Medicated Vapour Bath," and apply it. See also "Index," "Tea Powder," and use as directed with the meals, instead of tea, coffee, or other beverage. Apply poultices of POWDERED ULMUS FULVA constantly during the inflammatory and suppurative stages, from the time, in fact, when they are first noticed until the parts are healed. The common practice, even now, is to make a deep crucial incision into the substance of the boil. We well recollect the advice of the venerable Lawrence, whose experience as a surgeon in St. Bartholomew's, London, was greater by far than that of any living man, telling the students that his practice originally consisted in making the incision named, but that now, though late in life, he had discovered his error, and hoped they would never fall into it. The common poultice of the hospital was pulverized linseed, and where gangrene had set up it was mixed with pulverized charcoal. There is nothing equal, however to the "Ulmus" as now recommended.

Should the appetite require attention, see "Daily Medicine," as prescribed in *Rupia*, and take in the same way; or if the patient suffers from constipation, indigestion, chronic disease of the liver, or any other disease, see "Index," and treat accordingly. See also remarks upon *Rupia*. The general hospital practice is to give porter, beer, and wine, to almost any extent; and in some cases this may not be altogether objectionable; nothing of this kind, however, can bear comparison with the "Convalescent" and "Diet Drinks" prescribed in the present work, for which see "Appendix" and "Index."

It will be seen from the quotation below* that the "fig" was used as an external application in 'boils' thousands of years ago, and even at the present time, in this country, it is the practice among many of the

* When King Hezekiah lay sick from a diseased condition of the blood, the prophet Isaiah was sent with a message from GOD. "Set thine house in order for thou shalt die." It was doubtless unexpected, and he felt it keenly, for life is precious even to kings. "Then he turned his face to the wall, and prayed unto the Lord, saying, I beseech thee, O LORD, remember now how I have walked before thee in truth and with a perfect heart, and have done that which is good in thy sight. And Hezekiah wept sore. And it came to pass, afore Isaiah was gone out into the middle court, that the word of the LORD

poor in villages to split a fig, boil it in milk, and apply it to abscesses, 'boils,' and 'carbuncles.' Among the ancients the green 'fig' was used; and when it can be had in this condition it is by far the best. In the absence of the "Ulmus "or "Slippery Elm," as recommended, however, if the fig cannot be had in its "green" state, apply it split and boiled in milk. There is nothing better.

One of the most popular and talented medical men of the last century, the celebrated Dr. Mead, speaking of Hezekiah, says, "It seems to me extremely probable that this king's disease was a fever which terminated in an abscess; for in cases of this kind those things are always proper which promote suppuration, especially digestive and resolving cataplasms; and dried figs are excellent for this intention. Thus, the Omnipotent, who could remove the distemper by his word alone, chose to do it by the EFFECT OF NATURAL REMEDIES. And here we have a useful lesson given us in our adversities; NOT TO NEGLECT THE USE OF THOSE THINGS WHICH THE BOUNTIFUL CREATOR HAS BESTOWED UPON US, *and at the same time to add our fervent prayers that he would be graciously pleased to prosper our endeavours.*" Of which we would say, *firstly*, Hezekiah's cure was successful because the application was natural, and, *secondly*, whatever is natural, if wisely applied, is scientifically right, and therefore pleasing to the Creator, honorable to the physician, and beneficial to mankind. And the physician who has made himself master of his profession, and practises agreeably with science or truth (for 'science' only is truth) can look with confidence to his Creator, and say with good King Hezekiah, "I beseech thee, O LORD, remember now (*now* in the midst of my doubts, fears, and difficulties) how I have walked before thee in truth and with a perfect heart, and have done that which is good in thy sight."

PRURIGO *(Pruritus).*

DESCRIPTION.—There are many forms of cutaneous disease resembling each other so closely that no two medical men could be

came to him, saying, Turn again and tell Hezekiah, the captain of my people, thus saith the LORD, the GOD of David thy father, I have heard thy prayer, I have seen thy tears: behold, I will heal thee: * * And Isaiah said, Take a lump of figs. And they took and laid it on the boil, and he recovered."—*II Kings, chap.* XX.

found to always agree as to which was one or which the other, and yet it is necessary to know them, even though they should be too obscure to distinguish with anything like certainty. To 'know them,' in fact as *irregular* and *doubtful* is the only way to derive any advantage from the knowledge. There are several varieties of *Prurigo* or small elevations of the skin, of which the most common are *Prurigo Mitis*, *P. Formicans*, and *P. Senilis*.

Causes.—Debility, low vitality, cachexia or vitiated condition of the system, want of cleanliness, unwholesome food, age, syphilitic transmission, &c., &c.

Diagnosis.—Eruptions of hard irritable pimples, situated in clusters about the arms, hands, face, neck, and shoulders, or any part of the body, accompanied with severe itching; sometimes attacking the generative organs of either sex, but more commonly the female. *Prurigo Mitis* is that form of the disease represented by the smaller pimples, and not so irritable as the others. *P. Formicans* is much more troublesome, the papulæ are larger, and the itching much more severe, particularly when warm in bed. *P. Senilis* is accompanied with great irritability, dryness, and desquamation of the skin.

Treatment.—*Hygiene.*—Cleanliness, good ventilation, wholesome diet, and frequent change of linen.

Treatment.—*Medicine.*—In no skin disease should the "Medicated Bath" be neglected. Prescribe as follows:—

℞ Chelidonium Majus (Celandine) greater, dry herb... Two ounces.

Prepare as in *Eczema*, and use as directed in that disease. See also "Index," "Celandine Ointment," and apply after each bath.

In either form of the disease this treatment is applicable. For internal use prescribe—

℞ Fluid Extract of Galium Aparine (Clivers) ..... One ounce.
Stillingin ..... Ten grains.
Podophyllin ..... Three grains.
Pure spring or filtered rain water... ..... Eleven ounces.

Mix, shake well up, and take a tablespoonful three times a day.

Should the disease be seated in the vulva, labia, rectum, or vagina of

the female; or in the rectum or glans penis of the male: in addition to the "Medicated Bath," apply very lightly, with a feather or small camel hair brush,—

℞ Tincture Sanguinaria (Blood Root)..... ..... Half ounce.
Filtered Rain Water ..... Half ounce.

In about ten minutes after this, a little "Celandine Ointment" may be used.

The above diluted tincture may be applied pure as soon as the parts are sufficiently improved to admit it.

It will also be necessary to bear in mind that the medicine prescribed is for adults, and that in childhood and youth it must be regulated to suit the age.

For diet see *Eczema*, page 231; see also "Index," "Diet Drinks."

LICHEN *(Papulæ, Pimples).*

Description.—We have said, "It is often difficult to distinguish many of the different forms of cutaneous disease, and that whilst it is necessary to know this, it is at the same time 'necessary' to 'know' that the distinctions exist." *Lichen* agrees in its character with *Prurigo*, and but for the fact that it is developed in many cases under different conditions, we might with propriety accept the one for the other. The pimples are smaller and more common in the earlier periods of life. It is divided into *Lichen Simplex*, *Lichen Strophulus*, *Lichen Urticatus*, *Lichen Agrius*, and *Lichen Syphiliticus*.

Causes.—Extreme heat, disarrangement of the stomach and bowels, low state of vitality, cachexia, impure nutrition, bad ventilation, uncleanness, syphilitic diathesis, &c.

Diagnosis.—*Lichen Simplex* simply consists of hard red or white clusters of irritable pimples, situated more particularly in the upper part of the trunk, arms, and shoulders. *L. Strophulus* is common to children, and is known as "red gum," "tooth rash," and "white gum." *L. Urticatus* is only another form of *Urticaria* or nettle rash. *L. Agrius* is the name given to that form of the eruption which runs into inflamed irritable clusters, ulcerates, and falls off in scabs, which are afterwards replaced by thin scales. *L. Syphiliticus* is when the body is covered in different parts with copper-coloured blotches.

That *Lichen* should assume such a variety of forms, and attack the skin in so many parts, will be easily understood if we consider the causes under which it is induced, and remember the periods of life at which it is most common. Why should it be seated in the labia, vulva, and vagina of the woman; in the glans penis and rectum of the man; and upon the gums, tongue, or mouth of the child? We ask the question in order that the student may see that it is merely a question of development. There is, however, but one principle of cure.

TREATMENT.—*Hygiene.*—See *Prurigo*, page 244.

TREATMENT.—*Medicine.*—Prescribe the following lotion:—

℞ Myrica Cerifera, pulv. (Bayberry Powder) .... One drachm.

Infuse in a half-pint of boiling water, let it stand until cold, strain, bottle, and add—

℞ Tincture of Sanguinaria (Blood Root)..... Half ounce.

Take just sufficient of this to saturate a bit of soft linen cloth, wrap it around the index or fore finger, and wash the gums or whatever part of the mouth is affected, morning, noon, and night. In the other forms follow the treatment recommended in *Prurigo*.

LEPRA VULGARIS *(Scaly Leprosy).*

DESCRIPTION.—"Leprosy" has been known to civilized peoples in all ages of the world. It is probable, however, that the majority of those eruptions which we now distinguish under different heads were all classed under this one. It was common among the Jews, and is very minutely described by Moses. "If in the 'leprosy' there be observed a white tumour of the skin, and it have turned the hair white in it, and there be quick flesh within the tumour, it is an old 'leprosy' in the skin of the flesh. But if the 'leprosy' spread abroad in the skin, and cover the whole skin of the diseased from his head even to his feet, the person shall be pronounced clean."* What we understand by it now is a particularly scaly dry eruption, principally affecting the joints, knees, and elbow, but not confined exclu-

* See Leviticus, chapters 13, 14, 15.

sively to these parts, nor so distinct as to ensure a satisfactory agreement. On this account a certain licence is allowable in diagnosis.

Causes.—There can be no doubt but the disease owes more to hereditary transmission than to any other cause. Syphilis, secondary or tertiary, and scrofula, have much to do with it. Age, anxiety, poor living, and 'cachexia' must also be included in the category, although at best the causes are obscure.

Diagnosis.—White patches of scaly eruptions, varying from the size of a shilling to a crown, seated principally upon the arms, legs, knees, joints, and elbows, often extending to the back and abdomen. In some cases the patches coalesce and form irregularly into large coarse-looking dry dirty clusters, destroying not only the cuticle, but the sensibility of the parts altogether. It has been divided into *Lepra Alphoides* (silvery, light) and *Lepra Nigricans* (dark), but nothing further need be said to enable the student to understand the disease. He will, if he has much practice, meet with it occasionally, and know how to distinguish it from other cutaneous eruptions.

Treatment.—*Hygiene.*—See *Eczema*, page 231. Use the "Medicated Bath" freely, changing it alternately for the "Rumex," or dock leaves, (see "Index.") Attend to diet as recommended, and follow the treatment out perseveringly. There is nothing to be done without labour, and only in proportion to our knowledge of what is needed, and our resolution in doing it, have we any right to expect success.

Treatment.—*Medicine.*—See *Eczema*, and follow the directions out, using freely of the "medicine," in addition to the "Medicated Bath." The "Diet Drinks" recommended in cutaneous diseases (for which see "Index"), may also be used freely; and the "Soothing Ointment" as recommended in *Rupia* (see "Index") may also be applied with advantage in this and in all cases where the skin puts on a scaly, cracked, or dry appearance.

Not a word more need be said, we feel assured, to convince the the student of the nature of this disease. Like *Rupia*, *Eczema*, *Herpes*, *Prurigo*, and the whole host of cutaneous eruptions, it has its seat in

the blood, and whatever may be done, if this fact is not understood, and the practice worked out upon it, there can be no hope of cure.

PITYRIASIS (*Dandriff*).

Description.—This is another of the many troublesome diseases with which the skin is affected, and common alike to infancy, youth, and age. It consists in a falling or scaling off of the skin in small bran-like flakes. It chiefly attacks the scalp, but is sometimes found in other parts of the body.

Causes.—Poverty of blood, syphilis, a low state of vitality, inattention to cleanliness, the use of mercury, hereditary transmission, imperfect nutrition, &c.

Diagnosis.—Dry, irritable condition, attended with a constant scaling or falling off of the cuticle, particularly after friction, or the use of the hair brush. When it attacks the head it is called *Pityriasis Capitis*, or "dandriff of the head," and where scales or flakes of dead skin present (as it sometimes does) a black appearance, it is called *Pityriasis Nigra* or "black dandriff." In long-standing cases it is difficult of cure, particularly in age, or where it results from hereditary transmission, syphilis, or the use of mercury.

Treatment.—*Hygiene.*—Attend to the conditions of health, that is to say, see that the lungs are supplied with good wholesome air, and the stomach with a proper supply of nutritious food. Abstain from salt meat, use ripe apples, pears, and vegetables of every kind freely.

Treatment.—*Medicine.*—See *Rupia*, page 239, and follow the directions out perseveringly. In *Pityriasis Capitis*, or dandriff of the scalp, so common to children, wash the head daily with a strong lather of common soap and tepid water, and prescribe—

℞ Tincture of Stillingin .....One drachm.
Tincture of Mandrake .....One drachm.

Mix and give four drops three times a day in the following:—

℞ Fumaria (Fumitory herb, dry) .....Half ounce.

Infuse in a half pint of boiling water, cover up and let it stand until cold, after which strain, sweeten with honey, bottle, keep in a cool place, and give with the drops, in teaspoonful doses.

The "infusion," if given without the "drops," will assist the cure. It will not be necessary, however, if there is any difficulty in getting the child to take it, seeing that the cure is just a matter of additional time.

ICHTHYOSIS *(Fish-Skin).*

Description.—This is a peculiar form of disease, not so common as many others, but nevertheless one which is met with in practice occasionally. The surface of the body presents a dry hard scaly appearance, similar to that of a fish, hence its name.

Causes.—It is presumed to originate from hereditary predisposition, but this is a mere speculative notion. The fact is, we know little or nothing about it, and where this is the case it is well to acknowledge our ignorance and say so at once. There is no danger attending it, and in some cases very little inconvenience, although it is extremely difficult to cure. We recollect a very fine young woman, engaged to be married, coming to consult us some few months since, with her skin literally as hard as horn and as rough as a grater. There were three or four sisters and a brother in the same family, but not one of them had any appearance of the disease. She was in great distress, and most anxious to be cured. We pointed out the difficulties of the case, and made her understand that success depended upon herself and her own exertions, more than upon anything we could do for her, and that we feared she would object to the conditions which we should insist upon enforcing. "But I am about to be married," was her reply. "Aye," I remember, was ours; which fact enabled us at once to see the strength of the motive, and decide the chances were in her favour.

Diagnosis.—Hard dry rough scaly condition of the skin, chiefly affecting the hands, feet, and limbs; accompanied with a disagreeable offensive smell, slight irritation, itching, and most uncomfortable feeling.

Treatment.—*Hygiene.*—Good wholesome air, exercise, and clean-

liness. A diet composed chiefly of demulcent and nutritious food, fruits, vegetables, &c., such as boiled and roast apples and pears, strawberries and milk. New milk for breakfast daily, with broths, fish, butter, cream, and fresh meat.

TREATMENT.—*Medicine.*—A "Medicated Vapour Bath" of the *Althæ Officinalis* (Marsh-mallow herb) every second night, see "Index" for method of giving; after which, wipe the body dry, and well rub the surface all over with the "Soothing Ointment" (for which see "Index") and warm hand, until every part is softened and brought freely under its influence. This done, put on an old clean night dress, envelope or wrap the patient up in a dry sheet, put to bed, and prescribe—

℞ Althæ Officinalis (Marsh-mallow herb, dry) . ..... One ounce.

Infuse in a pint of boiling water, sweeten with treacle, add a half-tablespoonful of brewer's yeast, mix, drink moderately hot, wrap up, and go to sleep. In the morning, strip and wash the body all over with clean soft water, using at the same time freely of glycerine soap.

In addition to this prescribe—

℞ Oleum Morrhuæ (Cod Liver Oil),

A teaspoonful, in an equal quantity of raw cream four times a day.

We have introduced the case of the "young woman" simply to show the curative powers of natural agents. We saw her but twice, for she lived at a great distance, and being about to be married, and not too well off, she was in no condition to pay railway fares and the doctor. Suffice it to say, however, that she followed our directions out, got better, married, and when we saw her the second time, she came to return thanks for our attention, and brought us her baby to see, as fine a child as eyes ever looked upon.

In cases of this kind, where the skin is dry and horny, cod liver oil is invaluable. We have found it so by long experience in our practice, and apart from ordinary dietetic facts, more convincing, if possible. It is well known, for instance, that there are no people in the world so free from skin diseases as those well supplied with fish. In the whole of our coast towns, particularly in Cornwall, where large numbers of the people live chiefly upon fish, their skin has long been noted (particularly the women) for its clear healthy transparent appearance. The reason assigned by old writers is, "the constant

use of fish, particularly the pilchard," which is exceeding plentiful, rich in oil, and forming in many parts of the country the staple article of commerce and food.

The patient or medical attendant will bear in mind that the cold ablution of soft water and glycerine soap, recommended after the "Medicated Bath," is to be taken every morning, and in order to prevent any tendency to relapse, it will be well, after the condition of the skin is removed, to gradually reduce the "Medicated Baths" to one a week. The "cold ablutions," however, should be used constantly, not so much in the light of a medicine, as a prophylactic agent.

LUPUS *(Wolf).*

Description.—This is a most distressing form of cutaneous disease, and one which in most cases is considered beyond the reach of medicine. It generally attacks the face and nose, which passes rapidly into a destructive process of ulceration, often eating away and destroying the whole of the parts even to the eyes. It has been divided into *Superficial Lupus*, and *Lupus Exedens;* but there is little advantage in this, inasmuch as the disease in all its gradations is known by the uniform ulcerative character which it rapidly sets up. In its milder form, it may not pass beyond the "superficial," but when this is the case, that is to say, when it is confined exclusively to the skin, we should class it among one or other of the numerous diseases to which the 'skin' is liable, rather than the disease now under consideration.

Superficial Lupus is nothing more than an inflammatory condition of the cuticle, which exfoliates or peels off and leaves the true skin exposed, presenting a red appearance which, when pressed, passes off, and when removed leaves a scar-like appearance as if the part had been seared with a hot iron.

Lupus Exedens or "true lupus," on the contrary, is deep-seated and destructive from the moment of attack, and can scarcely be said to have any of the common characters of the "superficial."

Causes.—That the disease is, in some way or other, connected with a scrofulous diathesis, there can be little doubt; or it may have its origin in syphilitic transmission (enthetic disease). There is nothing positively known of its causes, however, and the wisest of us

can only speculate or deal in conjecture. It may be met with almost at any age from youth up to middle life; it is rare in childhood, and equally rare in old age.

Diagnosis.—Swelling in the nose and side of the face, inflammation and pain; discharge of thick mucous, succeeded by a small pimple which soon after ulcerates and forms a scab, beneath which a destructive process, is set up which, if not arrested, eats away the nasal cartilages, side of the face, gums, and even palate of the mouth. One of the worst cases we ever had was that of a young married man, some few years since in London. He had been treated by the principal physicians of Saint Bartholomew's Hospital, and many others, without receiving any benefit. His brother was a student in our school there, and brought him to us completely broken down in spirit, and without the least hope of receiving any good. The whole of the palate bone, and much of the nasal cartilages were destroyed. The case, in fact, was so bad that we could scarcely venture to give the least hope. We cured it, however, completely, in the course of ten or twelve weeks, to his and even our own surprise. The palate bone, it is true, could not renew itself, but the opening through which a great part of whatever he drank passed through the *Nares* and escaped by the nose, was reduced to a very small opening, and by the aid of an artificial palate, he recovered the use of his speech (which was all but lost), and was enabled to take any kind of drink as well as ever.

Treatment.—*Hygiene.*—It is but little that need be said upon this part of the subject, inasmuch as the disease is not so immediately influenced by it as many others are; attention to the conditions of health, under all circumstances, however, is absolutely necessary, and equally so in this.

Treatment.—*Medicine.*—What is the general condition of your patient? Consider this as the primary question, and remember that the face, nose, and their appendages, could not have been where they are had there been no blood to make them; and that the reason why they are in their present state is because the 'blood,' from some cause or other, has become contaminated with a *virus* which, from its peculiar affinity with the parts, has set up a destructive process which we are called upon to remove. That the 'process' is from within we

are well satisfied, from the fact that the disease is non-contagious. Put the stomach into a condition to assimilate whatever food and medicine are taken, see that the lungs are well supplied with pure air, attend to cleanliness, and prescribe "Medicated Herb Bath" once a week (see "Index"); also the following emetic:—

℞ Eupatorium Perfoliatum (Boneset Herb)...Half ounce, or rather more.

Infuse in a pint of boiling water, let it stand until cold enough to drink: strain and add

Tincture of Lobelia (Spirituous)..... One drachm.

Mix and take it in wineglassful doses every ten minutes (after taking the bath), until the stomach is freely vomited.

Let the parts affected be well fomented every night with a strong hot decoction of the root of the male fern; and cloths four or six times thick saturated with the same, applied cold at bed-time (every night). They should be covered with a bit of oiled silk, and fastened on with a bandage or handkerchief. During the day a little of the "Soothing Ointment" may be applied (see "Index"), and the parts sheltered or covered with soft cotton cloths. The following medicine should now be prescribed:—

℞ Arctium Lappa (Burdock Root, dry, cut small) ... ..Three ounces.

Gradually boil in four quarts of water, in a porcelain-lined saucepan, covered, down to two, after which add

℞ Scrofularia (Fig Wort Herb, dry).....One ounce.
Galium Aparine (Clivers Herb, dry) .....One ounce.

And let it stand until cold; express the whole and add

Extract of Liquorice ....One ounce.
Tincture of Stillingin .....One ounce.

Keep in a cool place, and take a wineglassful three times a day.

In addition to this, prepare and take the following:—

℞ Verbena (Vervain Herb, dry) ....One ounce.

Infuse in a pint of boiling water, and drink daily as occasion serves, in change with

℞ Galium Aparine (Clivers Herb, dry) .....One ounce.

Infuse in a pint of cold water one day, and drink the next. Should the application of prepared "male fern" produce irritation and pain after using it a few days, as it generally does, prepare and apply in change a strong infusion of clivers, in boiling water, at the rate of two ounces to the pint.

The male fern should be gradually boiled down as follows:—three ounces, dry (cut small or crushed), in three pints of water down to one.

Prescribe the following powder, to be taken the last thing before retiring:—

℞ Daphne Laureola (Spurge Laurel, in powder) .....Five grains.
Stillingia .....Five grains.
Ginger (powder).....Eight grains.
Podophyllin.....Three grains.

Mix well, divide into seven parts, and give one part at bed time.

We may remark, in conclusion, that we know no disease more difficult of cure, or requiring greater perseverance on the part of the patient; nor do we know any other treatment, no matter under what name it passes, or by whom it may be applied, that is of any use. Mercury, zinc, arsenic, iodine, and all the other metallic and mineral preparations, whether used externally or internally, are all worse than useless. There is no hope for the sufferer, therefore, but in the treatment prescribed.

SYCOSIS *(Chin Welk, Scurvy in the Beard).*

Description.—There are few practitioners but have some time or other met with cases of this kind, and doubtless know pretty well the difficulties that attend them. It is defined by Copeland as "a chronic pustular eruption, either scattered singly, or clustered over the chin, upper lip, and lateral sides of the face; the pustules being pointed, and seated chiefly in the hair follicles and connected tissues, and being sometimes propagated by contagion."

Causes.—That it is "contagious" in the majority of cases there can be little doubt. After all that can be said, however, there is much in it that is obscure. Dr. Guy says, "the disease is due to the development of a vegetable parasite;" and M. Foville states that he has seen several of the insane patients in the hospital at Rouen, successively attacked with this affection from having been shaved with the same razor. It is most common in adult males, engaged daily under a high temperature, such as workers in metals, refiners, cooks, founders, glassmakers, &c. Spirit drinking and high living have also much to do with it, as well as the want of attention to cleanliness. It is most common in spring and autumn.

DIAGNOSIS.—Redness and smarting in the skin of the lower jaw, chin, and upper lip, often extending to the sides of the face, followed with small eruptions, which soon ripen into pointed pustules, having white or yellow heads, which, after an interval of five or six days, burst, discharge their contents, and form thin brown scabs. If the disease is not removed the beard, after a time, falls off, and the parts affected become covered with tubercles, which secrete or throw off a pale or yellowish green matter. It is, in its worst forms, difficult of cure, and often bids defiance to the very best exertions.

TREATMENT.—*Hygiene.*—Look well to the cause or causes, and having found them, insist (if you hope to cure the disease) upon their removal. Examine well the condition of the beard, and if any portion is seriously implicated, the hairs should be removed by a pair of small tweezers or forceps. This done, let the parts affected be bathed every night in the following decoction.

℞ Chelidonium Majus (Celandine herb, dry) .... Two ounces.

Infuse in two quarts of boiling water, and use at bed time, with a piece of flannel or sponge, as hot as it can well be borne, for full ten minutes; and in the morning use it again, cold. A single pint will be sufficient for the bathing "night and morning," which should be thrown away after being used, and a pint from the "two quarts" prepared afresh for each day's use.

In addition to this, see *Lupus*, page 253, and use the same external application, keeping it on during the night. Attend to the body mornings. That is to say, use plenty of soap and cold water, taking care to keep the skin very clean, particularly the chin and parts affected. Use in fact, freely of soap until the parts are fully saturated with a strong lather, after which wash clean, and apply a little "Celandine Ointment" (see "Index,"), during the day.

TREATMENT.—*Medicine.*—See *Lupus*, page 253. Prescribe the same medicine, and follow out the directions perseveringly. See also "external applications," "Rumex Hydrolapathum" and "Bistortæ Radix," as recommended in *Tinea Capitis*, page 259, and use in change with the "Chelidonium Majus." For "Medicated Vapour Baths" in skin diseases, see "Index."*

* Avoid mineral and metallic preparations of every kind, whether prescribed by regular or irregular practitioners; they do but increase the difficulty, and render the disease more intractable.

TINEA TONSURANS (*Circinata, Ringworm*).

Description.—This is a parasitic disease of the scalp, most common to children, and highly contagious. It is well known to mothers with large families and little means. There is no danger connected with it, but next to *Scabies* or *Itch* we know of nothing more troublesome, particularly when it invades, as it sometimes does, a family or school.

Causes.—Bad ventilation, poverty, sleeping between dirty sheets or blankets, contagion, friction, &c.

Diagnosis.—Small vesicular eruptions, arranged in circles, having a red inflamed base, or rugged naked patch, seated upon some part of the head, and varying from the size of a shilling to a crown, or larger. We have, under the head *Herpes*, page 234, already treated the disease when other parts of the body are attacked, but this now under consideration, from the fact of its being confined to the scalp, and known as "Ringworm," in contradistinction to "Herpes," needs more than what is there written. It is generally presumed to be free from constitutional disturbance, but this is an error which we think it well to correct. The 'disturbance' may not be great, it is true, but in all cases that have come under our notice, we have found the fœcal discharges more or less offensive, and no better evidence can be had than this.

Treatment.—*Hygiene.*—Consider the causes and remove them; separate the child from others, let it sleep alone, keep it from school, and give it good wholesome food, exercise in the open air, and above all pay strict attention to the skin. See *Sycosis*, page 255, prepare the "Chelidonium Majus," and use as in that disease; after which rub in a little "Celandine Ointment" night and morning, see "Index," and cover with oil-skin, to prevent its rapid absorption. Should any short stumpy decaying hair interfere with or stand in the way of the cure, it will be well to shave the part.

Treatment.—*Medicine.*—

℞ Fluid Extract of Taraxacum (Dandelion) ..... One ounce.
Distilled or filtered soft water ..... Seven ounces.
Podophyllin ..... Four grains.

Mix well, shake up, and give a dessertspoonful twice a day.

Should it be necessary to use a stronger external application, which it sometimes is in stubborn cases, prescribe the following :—

℞ Tincture of Sanguinaria (Blood Root) ..... Half ounce.

Touch or cover the parts affected, morning, noon, and night, using a small camel hair brush, and allowing a few minutes for the application to be absorbed, before covering the head.*

TINEA CAPITIS *(Favus, Scald or Scabbed Head).*

Description.—This disease chiefly affects the scalp, and like the last, is common to children. It sometimes attacks the eyebrows and forehead, completely disfiguring the head and face, and giving a most unwholesome appearance to the countenance.

Causes.—The disease has its origin in a parasite, which, attacking the follicles of the hair, eats into the scalp, until the whole surface becomes a mass of corruption, completely enveloping the head, and, in some cases (as we have already said) the "eyebrows and forehead." We know nothing of its origin, and our best judgments are often at fault, as regards its remote and primary causes. That it is contagious we well know, but beyond this we can say nothing positive.

Diagnosis.—Clusters of small round pustules, full of matter, usually yellow, and giving off an offensive odour. In the majority of cases they run into each other, become confluent, and form a crust or scab, beneath which the matter lodges in a spongy hollow mass.

Treatment.—*Hygiene.*—In this as in all other diseases of the skin, cleanliness should be the primary consideration, and beyond all things, we should be careful to prescribe nothing that may in any way become injurious. One could scarcely realise the belief (if the facts were not so overwhelming) in the possibility of treatment so manifestly wrong as that which at present obtains. Copeland, than whom no higher authority can be found, speaking of it, says, "The ointments prescribed for this complaint after the crusts have been removed, have

* In the cure of this disease, and all others connected with the skin, we have never found it necessary to resort to *mercury, arsenic, zinc, copper*, or any of the metallic and mineral poisons so generally employed; nor have we ever met with a case that did not yield to the treatment prescribed.

often failed. Those containing *mercury* in some form or other, although advised by very eminent physicians, have not only frequently failed, but have sometimes been injurious, especially when their effects have not been carefully watched. Ointments containing *calomel* are praised by HILDEBRANT and others. * * * * Besides the above, solutions of *nitrate of silver*, the *sub-carbonates of the alkalies*, *sulphate of copper*, *sulphate of zinc*, *sulphate of iron*, *sulphuret of potass*, and the *arsenate of potass*, have been severally employed by numerous authorities; whilst decoctions and infusions of *tobacco*, and of various narcotic plants, have been advised by many writers. * * * * * Other substances have been prescribed for this complaint, either in the form of ointment, or in a fluid state, as a lotion or wash, as the peculiarities of the case suggested; of these, the most important are *arsenic* and *tobacco*. My own observations have proved that these may be most dangerous when applied to a large surface after the crusts of *Favus* have been removed, especially when incautiously used in a fluid state, or when ointments containing either, have been too long applied or too frequently renewed. JUSTAMOND witnessed a case in which the use of a decoction of *tobacco* was fatal; and I have seen an instance in which *arsenic*, applied to the scalp, after the removal of the crusts of *Favus*, very nearly produced a fatal result. *Tartar Emetic* has been advised by BLIZARD, but it may also be injurious, if not carefully watched, and it is by no means of great service at any period of the disease." Now if we were to ask for what purpose these poisons were used, the reply would be naturally enough, "to destroy the parasite;" and if we again asked, "Is the 'parasite' of internal or external growth?" the reply could only be doubtful. In either case the substances named are useless to the disease and injurious to the patient. HUFELAND treated *Favus* externally with the *Tussilago Farfara* (Coltsfoot), and LINNÆUS treated it with the *Ledum Palustre* (wild rosemary). And if such men as these, who are truly great medical lights for all future ages, give their evidence in favour of simples, we may well be excused for questioning the authorities of DR. COPELAND, in common with SIR JOHN FORBES, DR. WATSON, and many others, whose long experience testify to the truth of their condemnations.

In the treatment of the disease, then, 'Hygiene,' as we have already said, is of the greatest importance, and should never be overlooked; but before commencing the 'treatment,' cut the hair as close

as possible, and every night and morning prepare a thick lather of common soap and warm water, with which well bathe the parts affected, rubbing them in fact for full ten minutes with the lather, after which wash clean off, and wipe dry with a soft cloth. In addition to this, the skin must be kept clean, and as much out-door exercise and good wholesome air as can possibly be had.

TREATMENT.—*Medicine.*—

℞ Fluid Extract of Galium Aparine (Clivers) ... ... One ounce.
Distilled or filtered Soft Water ... Three ounces.
Stillingin ... Ten grains.
Leptandrin ... Ten grains.
Podophyllin ... Three grains.

Well mix, shake up, and give from a half to a teaspoonful three times a day.

As an external application prescribe—

℞ Rumex Hydrolapathum (Great Water Dock root, dry), Two ounces.

Cut small, bruise, and gently boil in two quarts of water down to one, let it cool, strain, and add—

℞ Simple Tincture of Myrrh ... One ounce.

Prepare two or more thick soft cotton night caps, saturate one lightly with the above mixture, cover the head and parts affected, placing upon the outside an oil-skin cap, to prevent its too rapid absorption. Apply a clean cap every night, and in the morning let the head and body be washed in cold water, using the "soap lather" (for the head) freely, after which wipe dry, and apply the "Celandine Ointment" (see "Index"), cover the head with a cap, and once during the day wash the parts affected, and apply a little fresh ointment.

It sometimes happens that the exudation adheres so closely to the scalp that it cannot be removed by the means prescribed. In such cases prepare a cataplasm or poultice of the following:—

℞ Ulmus Fulva ... Sufficient.

Mix in warm water, but first apply a little of the "Celandine Ointment," spread the poultice, and place it between two very thin cloths, fasten with a cap sufficiently tight to confine it in its place, and keep it on during the night.

If this is used in turn with the other, it will not only assist the removal of the adhesive matter, but greatly aid the cure. Should a more astringent external application be necessary, prescribe—

℞ Bistorta Radix (Bistort root)... Two ounces.

Prepare and apply in the same way as the "Rumex Hydrolapathum."

SCABIES (*Itch*).

Description.—There is no evil, it is said, without a corresponding good, and although it might appear at first sight that "Itch" was an exception to the rule, a very little reflection will convince us it is not so. That it has a bad name we freely admit, but its purpose in the economy of human life, is clear enough. It is certainly a most loathsome disease, and we associate it naturally with loathsome ideas. The relation which it bears to the best interests of life, however, apart from its practical realization, is the best evidence we can give of its true value. We scarcely need say that it is a contagious disease of the skin, very peculiar in its character, and that although there is nothing in it to be alarmed at, so far as its fatality is concerned, that nevertheless in some of its forms it is distressingly teasing, and he who does justice to it has time for little else. There are several forms of the disease which it will be necessary to notice, for although it has but one specific character, as far as its irritability goes, it presents a variety of appearances, and is often so complicated with other forms of skin disease that the most skilful physician may be deceived, or have his doubts concerning it. Dr. Copeland divides the disease into, 1st, *Scabies Vesicular;* 2nd, *Scabies Lymphatica;* 3rd, *Scabies Purulenta;* and 4th, *Scabies Cachectica.*

Causes.—Poverty, dirt, the habits that grow out of individual ignorance, and bad social arrangements. It is clearly a disease of contagion, and whilst some authors have contended that it may be spontaneously engendered, others have equally contended that it could not be without contact. But this is a matter of small moment, which we can afford to pass without the slightest loss, the active cause, however, is worthy our best attention. "It occurs in every climate, in every season, in all ranks and ages; but is most common among the poor and wretched, in persons negligent of cleanliness; in sailors, soldiers, workpeople, dealers in old clothes, tailors, and especially in crowded gaols, barracks, workhouses, and factories. It is rarely observed in tanners, dyers, and blacksmiths, or in the families of the affluent." The immediate cause, as we have already said, is from contact. A little lively insect, havin six legs, a sharp pointed

head, and two horns, when we are dirty and neglect the conditions necessary to our safety, takes possession of some part of our bodies, and burrows under the cuticle, where it makes itself exceedingly happy, feeds well, grows fat (for it is delighted with dirt, hates in fact clean people, and will have as little to do with them as possible,) and soon becomes the progenitor of a race of *Acaries Scabies* (for that's the creature's name), as 'lively' as himself, who play such fantastic tricks in their world of humanity that flesh and blood, horribly bothered, is forced in self defence to resort to some ablutionary means, which it would never do if not forced by the torture thus inflicted.

Diagnosis.—Itching of the skin, generally between the fingers, wrists, and joints, extending to the abdomen and inner sides of the extremities. The 1st, "vesicular form" *(Scabies Vesicular)*, is the most common, particularly in children, and may be known by the little irritable vesicles filled with serum, which itch so unbearably that the sufferer, to obtain a temporary cessation, scratches their heads off, without the least regard or care for the *Acaries*, for whom is unwittingly prepared a home. The 2nd, *Scabies Lymphatica* (Watery Itch) may be known by the larger size of the vesicles, which when ruptured by scratching, after a short time form into dark scabs. It is not so often observed upon the trunk as the former, but is chiefly confined to the fingers, wrists, hands, and at times feet and toes, which are covered with sores, and become exceedingly distressing. The 3rd, *Scabies Purulenta* (Pocky Itch) resembles the pustules of small pox. The itching is more severe than the other varieties; and after a few days the 'pustules' break and form scabs. The 4th, *Scabies Cachectica* (Scorbutic Itch) is simply a modification of the others, arising out of a cachectic or low state of vitality, poor living, &c.

The diagnosis of the disease in its various forms, as given, will enable the student to form a good idea of it. He will be often puzzled, however, with the complications that occur; and should doubts arise, as they most likely will, he can best solve them by referring to the numerous cases of skin disease treated throughout the work. In one or other of these he will be sure to detect the cause by discovering side by side, two, or it may be three, distinct forms of disease.

Treatment.—*Hygiene.*—As the disease is more immediately connected with the want of attention to cleanliness than to any other

cause, "cleanliness" is the first consideration in its cure. Prescribe a "Medicated Bath" as follows:—

℞ Quercus Rubra (common Oak Bark), dry ..... Eight ounces.

Crush and boil in two gallons of water down to six quarts. Throw the whole into a large pan, and when cold, bathe the whole surface of the body, every part, for full ten minutes, before going to bed.

This alone, if persevered in for a few nights, will cure ordinary "Itch." "But washing is so troublesome," methinks we hear some foolish people say. Well, we know it is, to lazy people, and this is the reason why the *Acaries* are so fond of them. Tanners are never troubled with these lively creatures; the reason is because "oak bark" is poison or death to them.

Treatment.—*Medicine.*—Except where the disease is complicated, little medicine is needed. It will be well, however, to relieve the bowels daily with—

℞ Compound Powder of Leptandrin ..... Two grains, or more or less according to age.

Take this daily for two or three days, use the "Cold Medicated Oak-bark Bath" as directed. Anoint the skin two or three times, over night, after using the bath, with the "Compound Rumex Ointment" (see "Index"), and the work is done.*

PURPURA *(Scurvy).*

Description.—The ancients used as a common name, "Leprosy," to represent the principal types of skin disease. The moderns employ

* There will be no necessity to say another word concerning this disease. "Cleanliness," we have said, is one of the great primary conditions of health, which at no period of life will admit of neglect. Even when in "health," a Vapour or Hot Water Bath should be taken at least once a week; and every morning the body should receive the same attention as the face, which, if when in health, is a 'necessary' condition, how much more necessary when the body is in the state described.

For Baths of every kind see "Index;" and if the *Quercus* or Oak Bark should not be at hand, *Bistortæ* (Bistort Root), or the *Rumex Hydrolapathum* (Great Water Dock Root), prepared in the same way, and in the same quantity, will answer every purpose, and may be used in its stead.

It is important to bear in mind that soap should not be used with the bath, when taken at night, but that in the morning it should be used freely with cold water, in order that the ointment and effete or dead skin may be removed as it is cast off.

the term "Scurvy" to represent theirs. We speak of course simply of non-professionals, who could not do other than fail to recognise the numerous varieties and nice distinctions which grow out of long experience and careful observation. That the many forms of cutaneous disease already described have their foundation in the blood, can scarcely admit of a doubt, and that whatever will restore it to its healthful condition will remove the disease, few will presume to dispute. Now if we admit this, and I cannot see how we can do otherwise, we shall have found something like a base upon which to rest, whilst we continue our researches. What is "Scurvy?" A disease of the blood, undoubtedly, and one through the pathology of which the light of medical science cannot fail to be seen by all whose reason is not obscured by spurious teaching and conventional error. There are gradations of character in this as in all other diseases, which depend entirely upon the quality and condition of the blood, and these constitute the distinctions. It is defined by COPELAND as a disease of "lassitude, debility, lowness of spirits, fœtor of the breath, and sponginess of the gums, followed by livid sub-cutaneous patches and spots, especially on the lower extremities and roots of the hair; and lastly by spontaneous hæmorrhages from mucous canals, by contractions, pains of the limbs, and superficial ulcers, &c.; the disease proceeding from an alteration of the blood, caused by unwholesome or insufficient food, and by the privation of fresh vegetables." We see at once from this definition the gradations with which it is marked, and understand why it is divided into *Purpura Simplex* (simple Scurvy), *Purpura Hæmorrhagica* (Land Scurvy), and *Purpura Nautica* (Sea Scurvy). The first represents it in its mildest form, the second in its advanced or more malignant, and the third in its chronic, or the form which it assumes when resulting from long sea voyages, exposure, salt provisions, impure food, deprivation of vegetables, &c.

CAUSES.—In this as in all other cases of a morbid nature, wherever there is a low state of vitality, a predisposition to disease will be found, which waits only some corresponding cause to develope it. COPELAND says, "The early writers on scurvy were inclined to ascribe a contagious influence to the disease, chiefly from the number attacked with it in the same place and circumstances; but it was clearly shown that contagion had no share in producing it, by LIND and others, who wrote about the middle and end of the last century, the CAUSES

INDUCING THE MALADY BEING COMMON TO ALL AFFECTED BY IT IN THE SAME LOCALITY. But although the disease is actually uncontagious, it is by no means unreasonable to infer that the putrid emanations from a number of persons in an advanced stage of the disease, confined often in a very limited space, either on board of ships, in the crowded hospitals of a besieged town, or in crowded prisons, are not altogether innocuous, or are not without some influence in predisposing the body to this or some allied malady, arising from the contamination of the circulating fluids, and from the depression of vital or organic nervous power, by the accumulation of these emanations in the air, which is respired for a longer or shorter time. Nor would it be improbable that the emanations arising from a number of scorbutic patients, in places insufficiently ventilated, may convert the scorbutic malady into putrid maculated, or putro-adynamic fever, or into scorbutic dysentery, or even may more directly develope these diseases." How much the navies of Europe and mercantile seamen have suffered in the past from scurvy we are all pretty well aware. DR. LIND states that scurvy most commonly occurred on land in persons who subsisted chiefly on dried or *smoked* or *salted fish*, and the *unfermented farines*, or upon bread made of peas and oatmeal. KRAMER states that in his time this distemper appeared most frequently among those who lived altogether on boiled pulses, without any green vegetables or summer fruits. * * * * The prevalence of scurvy during 1847 and 1848 in Ireland, Scotland, and some parts of England, was very generally ascribed to the failure of the potatoe crop. But in some places in Scotland, DR. CHRISTISON imputed the disease to the privation of milk,—an opinion which has been negatived by numerous observations of the prevalence of "scurvy" where the supply of milk was abundant.

From these quotations, and from the experience of all practical physicians, it is clear that the deprivation of, or insufficient supply, and variety of food, impurity of the same, confinement in ill-ventilated factories, workshops, deficient sleeping space, whether at sea or on shore, want of attention to cleanliness, exposure, poverty, and the numerous ills to which flesh is heir, have all a hand more or less in inducing the disease, and that its varieties, from simple *Purpura* to *Purpura Nautica* in its most malignant form, merely represent the intensity of causes which have operated in its development.

Some diseases carry science in their face, so that almost any one

may see it, and some more subtle or obscure, apart from the reflection of others, give no light whatever. But from the evidences forced upon us by the harmony manifested in nature, and throughout the order and economy of human life, we obtain a clear knowledge of the truth, and science readily unfolds its apparent mysteries, so that the "wayfaring man, tho' a fool, cannot err therein."

Diagnosis.—*Purpura Simplex.*—Irregular congested round patches, of a dark claret colour, on the legs and thighs, often extending to the body, which fade after a few days, die off, and give place to others. Skin easily injured, and the bleeding, when it is broken, not easily arrested.

Purpura Hæmorrhagica.—Debility, pains in the limbs, lassitude, gums swollen and spongy, hæmorrhage or bleeding from the nostrils, mouth, and mucous membranes generally, congested round patches, larger than in *Purpura Simplex*, stiffness of the limbs, legs apparently full of bruises, feeble pulse, &c., &c.

Purpura Nautica.—Increase of debility, and of the symptoms named in *Purpura Hæmorrhagica*, palpitation of the heart, difficulty of breathing, aversion to exertion, countenance pale, sallow, and bloated; diarrhœa, hæmorrhage from the bowels, gums, mouth, nose, and sometimes from the ears, stomach, and lungs; excretions intolerably fœtid, appetite generally good: round congested patches or petechiæ, ulcerations and discharge of a sanious fluid; intellectual faculties good; voice generally strong; death often sudden.

Treatment.—*Hygiene.*—It is little that need be said upon this important part of the treatment, for it must be evident to every one that as the disease is caused by inattention or want of the application of the conditions of health, that the secret of cure lies more in the supply of these than in anything else; and here we see as clear as the sun at noon-day, that it has its origin in the violation of certain positive laws. In fact, we know of no disease where the evidences of cause and effect are so striking. "Some cases," we have said, "are obscure," but this carries the sum and substance of "medical science upon its face." Do we mean to cure it? if so, let us make ourselves acquainted with the causes, whatever they are, and remove them; if we do not, our efforts will be useless. "Medicine," we have said in a former part of our work, "understood and practiced as a science, in

so far as it relates to the administration of positive substances, consists in the knowledge and application of a graduated series or scale of organisms; that which is food in one condition of the body is medicine in another," &c., &c. In the disease now under consideration, it is impossible to mistake this, for in its very worst forms, if the system is not completely exhausted, where a good supply of vegetables and pure air can be obtained, the disease will cure itself. In this case the agents employed are both *food* and *medicine*. But, it may be said, there are diseases where the patient is incapable of taking food of any kind, where, in fact, it would destroy him. We know it. A beef steak is excellent for a strong man, but for a man stricken down with typhus, dysentery, or cholera, it is death. Nature, ever bountiful, however, has not left him unprovided for, hence a single grain, or even less, of some one or more of the active medical agents scattered so freely throughout the organic kingdom, which in health are of no value, become the life-sustaining principle, and do that in disease which food did in 'health.' In both cases the same great principle stands out in all its force, and he who recognises it and works it out is true to nature and science. "A philosopher may not be a physician, but a physician should be a philosopher."

Treatment.—*Medicine.*—If the student has made himself acquainted with the numerous forms of cutaneous disease already treated, he will find no difficulty in distinguishing *Scurvy*, and will easily recognise the complications that often accompany it, and the graduated phases of the disease. He will also know that its cure depends entirely upon the removal of the causes,—the latent or natural recuperative powers of life *(vis medicatrix naturæ)*, and the application of such agents (whether food or medicine) as will enable the body to repair and renew the diseased tissues. Consider the condition of the stomach, lungs, and general system; make your estimate of its powers, and treat it accordingly. A man greatly reduced by starvation would be destroyed at once by even a moderate meal. He must be dealt with gently, and with the greatest caution. The same law applies to disease of every kind, but more particularly to this now under consideration. "How long shall I be before I am better, doctor?" is a question often put by patients, especially by those dependent upon labour, as if it was as easily determined as any ordinary mechanical piece of work. Of course, we are expected to

reply, and since it is impossible to do so directly, we must do it indirectly, or as best we can, giving them to understand, as far as possible, the time and patience that are really necessary.

From the remarks made it will be seen that *Scurvy*, in its most malignant form, is caused either by the extreme deprivations of the actual necessaries of life, or by the want of sufficient variety to give healthy vitality to the system. Any single article of food, or even two or three, under long and continuous circumstances of a uniform character, however good, predispose the body to *Scurvy*, and convey to the reproductive germ the same morbid conditions which, when once established, wait only a favourable or exciting circumstance to develope it.

"The writers of the sixteenth century have generally noticed the popular use of *Scurvy Grass*, *Brooklime*, *Water Cress*, &c., for the prevention and cure of this distemper. All succulent vegetables and plants comprised in the order cruciferæ are more or less efficacious, especially the *Radish*, *Horse Radish*, *Turnip*, *Carrot*, CABBAGE, &c.; and even such of these as are commonly used when boiled, are more efficacious when taken raw and fresh from the ground. * * * *There is no northern country where Scurvy is generally endemic during winter, spring, and the early part of summer, that does not furnish a supply of anti-scorbutics, if duly recognized and preserved for these seasons.* In NORWAY, GREENLAND, ICELAND, and LAPLAND, they employ *Scurvy Grass*, *Sorrel*, and *various other warm acid herbs.* Sir E. Parry, in his first polar expedition, experienced the advantage of *Sorrel* in the cases which occurred among his crews. He states that *Sorrel* was preferred to *Scurvy Grass* by the Esquimaux. * * * * There is, perhaps, not any vegetable production more remarkably anti-scorbutic than the tribe of *Firs*, especially the *Spruce Fir* and *Common Fir* and *Mountain Pine*. MOELLENBROCK states that when the Swedish Army, at war with the Muscovites, were attacked with scurvy, DR. ERBENIUS prescribed a *decoction of Fir tops*, by which the most deplorable cases were cured, and the rest of the troops protected from the distemper. Two squadrons of ships, fitted out by Russia in 1736, were obliged to winter in Siberia, and their crews became affected with scurvy. After attempts to discover a remedy, the pines, which grew plentifully on the adjoining mountains, were hit upon; and by these all the men recovered in a few days. * * * A simple decoction of the *tops, cones, leaves,* or even *green bark* of, and *wood* of

these trees, is an excellent anti-scorbutic, but it becomes much more so when fermented, as in making spruce beer, the *molasses* contributes by its diaphoretic quality to make it a more suitable medicine. * * * This wholesome drink may be prepared at any time. But when it cannot be had, the common *Fir tops* should be first boiled in water, and the decoction afterwards fermented with molasses in the common method of making spruce beer, to which a small quantity of *Wormwood* and *Horseradish root* may be added. The Mineral Acids have been found but little influential in the prevention and cure of *Scurvy*. Dr. Lind took twelve patients on board of the *Salisbury*, at sea; their cases were quite similar, they lay in one place, and the diet was the same for all of them. Two of them were ordered a *quart of Cider daily;* two others took *twenty-five drops of the Elixir of Vitriol* three times a day; two had *two spoonfuls of Vinegar* thrice a day, and their food well acidulated with it; two were put on a *course of Sea-water*, about a half-pint having been given every day; two had *two Oranges and one Lemon* daily; and two had an electuary made of *Garlic*, *Mustard Seed*, *Rad: Raphan (wild Mustard Root)*, *Balsam of Peru*, and *Myrrh*, using *Barley Water* acidulated with *Tamarinds*, for drink. The *Oranges* and *Lemons* were the most speedily beneficial, next to these the cider; those who took the other medicines were at the end of a fortnight much in the same state as those who had taken only lenitive electuary and cream of tartar as an aperient."

"From what a different point of view," Liebig says, "should we contemplate the abnormal or diseased conditions of the human body, if we were first thoroughly acquainted with its normal conditions; or if we had estimated the science of physiology upon a satisfactory basis. How different would the treatment of diseases be conducted if we had perfectly clear notions of the process of digestion, assimilation, and excretion. Without just views of force, cause, and effect,—without a clear insight into the very essence of natural phenomena,—without a solid physiological and chemical education, is it to be wondered at that men, in other respects rational, should defend the most absurd notions; that the doctrines of Hahnemann should prevail in Germany, and find disciples in all countries. Reason alone will not prevent whole nations from falling into the most abject superstitions, whilst even a child, whose mind has been developed and instructed, will repudiate the fear of ghosts and hobgoblins."

In quoting freely from the works of the most celebrated writers of the age, we do but show the uniformity of science. In the cure of *Scurvy*, mineral acids were valueless; and after examining carefully all that has been known of any real value, regarding the great principles upon which the science of medicine is based, it proves to a demonstration that to organic agents alone we are indebted both for the prevention and cure of this disease; and if for "Scurvy" why not for all forms of cutaneous 'disease?' And if for "cutaneous disease," why not for all others? The future will most assuredly answer the question; for the present it is sufficient for us to say to the student, —In "Scurvy," you have the type of every form of blood disease; study, reflect, compare, and practice agreeably with first principles; do this and success is yours.*

* It will be unnecessary to give any single formula or formulas of any kind, seeing that we have treated "cutaneous disease" so freely, that it is impossible to mistake the indications of cure.

For Anti-Scorbutic Formulas, Astringent Gargles, Baths, &c., see "Appendix" and "Index."

Chapter XI.

INFLAMMATION, OBSTRUCTION OF THE CIRCULATION, &c.

REMARKS.

"DEATH IS A CORRUPTION WHICH TAKES PLACE THROUGH DEFICIENCY OF HEAT, AND SINCE ALL THINGS LIVING ARE WARM, AND ALL DYING THINGS COLD, THERE MUST BE A PARTICULAR SEAT AND FOUNTAIN, A KIND OF HOME AND HEARTH, WHERE THE CHERISHER OF NATURE, THE ORIGINAL OF THE NATIVE FIRE, IS STORED AND PRESERVED, whence HEAT and LIFE are dispensed to all parts as from a fountain head from whence sustenance may be derived; and upon which concoction and nutrition, and all vegetative energy depend. * * * The blood, therefore, required to have motion, and indeed such a motion that it should return again to the heart; for sent to the external parts of the body from its fountain, as Aristotle says, AND WITHOUT 'MOTION,' IT WOULD BECOME CONGEALED. FOR WE SEE 'MOTION' GENERATING AND KEEPING UP HEAT AND SPIRITS UNDER ALL CIRCUMSTANCES, *and 'rest' allowing them to escape and be dissipated.* THE BLOOD, THEREFORE, BECOMES THICK OR CONGEALED BY THE COLD OF THE EXTREME AND OUTWARD PARTS, AND ROBBED OF ITS SPIRITS, JUST AS IT IS IN THE DEAD; IT WAS IMPERATIVE THAT FROM ITS FOUNT AND ORIGIN IT SHOULD AGAIN RECEIVE HEAT AND SPIRITS, AND ALL ELSE REQUISITE TO ITS PRESERVATION,—THAT, BY RETURNING, IT SHOULD BE RENOVATED AND RESTORED."

HARVEY, on the Circulation of the Blood. Sydenham Society, pages 68-9.

It has been a matter of great surprise to many representative men in scientific medicine, that the important discovery of the "circulation of the blood," by HARVEY, should have produced so little practical advantage. The 'surprise' will cease, however, when we call to mind the little medical progress made during the last two thousand years. Scarcely three centuries have passed since HARVEY was born, and it was not until he had attained the ripe age of fifty that he published his views to the world, "having already," as he tells us in the preface to his celebrated treatise on the "Motion of the Heart and Blood," "gone on demonstrating the subject for nine years before his learned auditory, illustrating it by new and additional arguments, and freeing

it from the objections raised by the skilful among anatomists." In the settlement of all questions connected with human advancement great difficulties have to be overcome, and these depend more upon time than anything beside. *Truth*, *Light*, and *Science*, when first introduced, are met by established interests united with whatever errors exist, and these having secured position and power are generally well supported by the social conditions and prejudices of the public out of which they arise, and by whom they are maintained. Harvey was a great anatomist, but no philosopher, or he might have saved himself much of the chagrin and disappointment that attended his labours. His *confreres* readily admitted that he was a 'great anatomist,' but then he was *heterodox*, and that was a crime not to be forgiven. He dared to question the authority of GALEN and all the great names in Europe who defended him, and to "set himself up as superior to all others." AUBREY tells us* he "heard him (HARVEY) say, that after his book on the 'Circulation of the Blood' came out, he fell mightily in practice; 'twas believed by the vulgar that he was *crack-brained*, AND ALL THE PHYSICIANS WERE AGAINST HIM." Writing many years afterwards, when the cause particularly indicated above had conspired to make HARVEY's practice less, AUBREY informs us further that, "though all of his profession would allow him to be an excellent 'anatomist,' I never heard any THAT ADMIRED HIS THERAPEUTIQUE WAY. *I knew several practitioners in the town who would not give threepence for one of his bills (prescriptions) and* who said *that a man could hardly tell by his bills what he did aim at.*" "So has it mostly been," the writer says,† "with those who have added to the sum of human knowledge! The empiric, under the title of a practical man, in his unsuspecting ignorance, sets himself up and is admitted as arbiter whenever there is difficulty; blind himself, he leads the blinded multitude where he lists. *He who laid the* FOUNDATION OF MODERN MEDICAL SCIENCE LOST HIS PRACTICE FOR HIS PAINS, and the routineer, with an appropriate salve for every sore, a pill and potion for each particular ache and ail, would not 'give threepence for one of his prescriptions!' 'did not admire his therapeutique way!!' and 'could not tell what he did aim at!!!' Ignorance and presumption have never hesitated to rend the veil that science and modesty, in supplying the means, have still owned their inability to raise. If

* ROBERT WILLIS, M.D., Life of WILLIAM HARVEY. London, 1847.

† Lives of Eminent Persons, 8vo. London, 1813.

HARVEY faltered, who of his contemporaries could rightly presume to walk secure? *And yet did each and all of them, unconscious of the darkness*, tread their twilight paths assuredly; whilst he, the divinity among them, with his eyes unsealed, felt little certain of his way. SO HAS IT STILL BEEN WITH MEDICINE; AND THE WORLD MUST MAKE MANY A LUSTY ONWARD STRIDE IN KNOWLEDGE BEFORE IT CAN BE OTHERWISE."

That the 'stride' made by HARVEY was a 'lusty' one, every right-thinking man, whether professional or non-professional, is bound to admit; and although it may at first sight appear as if little practical good to medicine had grown out of it, nevertheless we cannot but feel that two centuries and a half, in comparison with the two thousand years that preceded the discovery, is but a very brief test, particularly when we remember, not only the general opposition of the time, but the many years it has since taken to secure a base for his work to stand upon. That 'base' was laid by HARVEY, not only in its anatomical but in its therapeutical aspect. He did his part for science well, and left behind him, in the womb of time, truths which are destined to give to medicine a great practical future. It is not to be wondered at that the professors of the time would not give 'threepence' for his prescriptions, for how could they do otherwise than condemn that which they did not understand? HARVEY was greatly in advance of the age, and even now but few see anything in his words. It has become the fashion to acknowledge that the discovery of the 'circulation' is a great fact, but few think of turning it to advantage; and yet what a world of practical truth is contained in it. We give the following quotation from his work:—

"We frequently see the extremities are chilled by the external cold, how the nose, cheeks, and hands look blue, and how the blood, stagnating in them as in the pendant or lower parts of a corpse, becomes of a dusky hue; the limbs at the same time getting torpid, so that they can scarcely be moved, and seem almost to have lost their vitality. *Now they can by no means be so effectually, and especially speedily, restored to heat and colour and life as by a new afflux and appulsion of heat from its source.* But how can parts attract in which the *heat* and *life* are almost extinct? Or how should they whose passages are filled with *condensed* and *frigid blood*, admit fresh aliment—renovated blood—unless the HEART were truly that fountain where *life* and *heat* are restored to the refrigerated fluid, and whence NEW BLOOD, WARM, IMBUED WITH SPIRITS, BEING SENT OUT BY THE ARTERIES, THAT WHICH HAS BECOME COLD AND EFFETE IS FORCED ON, AND ALL THE PARTICLES RECOVER THEIR HEAT WHICH WAS FALLING, AND THEIR VITAL STIMULUS WELL NIGH EXHAUSTED. Hence it is that if the heart be unaffected, life and health may be restored to

almost all the other parts of the body; but the heart being chilled, or smitten with any serious disease, it seems matter of necessity THAT THE WHOLE ANIMAL FABRIC SHOULD SUFFER AND FALL INTO DECAY. WHEN THE SOURCE IS CORRUPTED there is nothing, as Aristotle says, which can be of service either to it or aught that depends on it. *And hence, by the way, it may perchance be wherefore* GRIEF, and LOVE, and ENVY, and ANXIETY, *and all affections of the mind* of a similar kind, are accompanied with emaciation and decay, or with cachecomy and crudity, which engender all manner of diseases, and consume the body of man. For every affection of the mind that is attended with either *pain* or *pleasure*, *hope* or *fear*, is the cause of an agitation whose influence extends to the heart, and there induces change from the natural constitution, in the temperature, the pulse, and the rest, which, imparing all nutrition in its source, and abating the powers at large, it is no wonder that various forms of incurable disease in the extremities and in the trunk are the consequence, inasmuch as in such circumstances the whole body labours under the effects of vitiated nutrition, and a want of native heat."

In quoting thus freely from an author of such practical experience as a physician and anatomist as HARVEY, our object is, first, to secure an authority of the highest order in support of the views we propose to advance; and, secondly, to make the theory of the 'circulation of the blood' a great practical reality. "The 'life is in the blood,' and the 'blood' is determined by the proper application of the conditions of 'life.' Impure air engenders impure blood; impure water engenders impure blood; impure food engenders impure blood; deficiency reduces it in quantity and quality, excess vitiates and weakens it, cold obstructs it, inflammation disturbs it, fever accelerates it, and death arrests it. HARVEY taught the theory of the 'circulation of the blood,' the future must teach "its relationship and dependence upon the natural agents, and the relation and 'dependence' of life upon it." * * * Disease arises from the imperfect application of the conditions which determine health: the effect of that 'imperfect application' is a diminution of the forces upon which 'life' depends, and in proportion to that 'diminution' is all and every form of disease determined.

"ACUTE DISEASE is the first or primary manifestation of 'disturbance,' the successful termination or re-adjustment of which depends upon the *vital forces of the body, and the means employed to assist its restoration.*

"CHRONIC DISEASE is a manifestation of deficiency in the 'vital forces,' and of the inefficiency of nature, or the means employed to supply them.

"HEREDITARY DISEASE is the continuation of the original

manifestation of 'disturbance,' and of the tendency of life to beget its 'like.'"*

It will be seen from these remarks what our views are regarding the "circulation of the blood," and its relation to disease. HARVEY saw the importance of applying the knowledge practically, hence his prescriptions were not worth 'threepence' to his contemporaries. The cure of disease depended, according to him, upon the restoration of the blood to its normal or natural condition. Anything, whether of a physical or mental character that disturbed it, more or less affected not the heart alone, but every part of the body. Apart from the blood there could be no life. "Death," he says, "is a corruption which takes place through deficiency of heat, of which the *blood* is the source, and the *heart* the fountain. Disease is a disturbed and vitiated condition. Carry the blood through the obstructed part, wherever it might be, and you cured the 'disease.'" This doctrine was so simple that few or none could see it; so difficult is it to break through the prejudices which time and custom weave to ensnare the mind. HARVEY felt this, wondered why it should be, and like "representative men" in all ages, would, had it been possible, have given over teaching new ideas, which haunted him night and day, made him the butt of the ignorant, and sport of the interested, and caused him so much suffering and anxiety. "I not only fear injury to myself from the envy of the few," he says, "but I tremble lest mankind at large become my enemies; so much doth wont and custom, that become as a second nature, and doctrine once sown, that hath struck deep root, and respect for antiquity, influence all men. STILL THE DIE IS CAST, and my trust is in the love of truth, and the candour that inheres in cultivated minds. And, sooth to say, when I surveyed my mass of evidence, whether derived from vivisections and my various reflections on them, or from the ventricles of the heart and the vessels that enter into and issue from them, the symmetry and size of their conduits,—*for nature doeth nothing in vain*, would never have given them so large a relative size without a purpose,—or from the arrangement and intimate STRUCTURE OF THE VALVES in particular, and of the other parts of the heart in general, with many things besides, I frequently and seriously bethought me, and long revolved in my mind, *what might be the quantity of blood which was transmitted*, in how short a time its passage might be

* Plea for the Botanic Practice of Medicine. London, 1853.

effected, and the like; *and not finding it possible that this could be supplied by the juices of the ingested aliment without the veins, on the one hand, becoming drained, and the arteries on the other getting ruptured, through the excessive charge of blood*, UNLESS THE BLOOD SHOULD SOMEHOW FIND ITS WAY FROM THE ARTERIES INTO THE VEINS, AND SO RETURN TO THE RIGHT SIDE OF THE HEART,—I BEGAN TO THINK WHETHER THERE MIGHT NOT BE A MOTION AS IT WERE IN A CIRCLE. Now this I afterwards found to be true; and *I finally saw that the blood, forced by the action of the left ventricle into the arteries, was distributed to the body at large, and its several parts, in the same manner as it is sent through the lungs impelled by the right ventricle into the pulmonary artery, and that it then passed through the veins and along the vena cava, and so round to the left ventricle in the manner already indicated;* which motion we may be allowed to call 'circular,'* in the same way that Aristotle says that the AIR and RAIN emulate the 'circular' motion of the superior bodies; for the moistened earth warmed by the *sun*, evaporates; the vapours drawn upwards are condensed, and descending in the form of rain, moisten the earth again; and by this arrangement are generations of living things produced, and in like manner too are tempests and meteors engendered by the 'circular' motion, and by the approach and recession of the *sun*. And so, in all likelihood, does it come to pass in the body, through the motion of the blood; the various parts are nourished, cherished, quickened by the warmer, more perfect, vapourous, spirituous, and as I may say, alimentive blood which, on the contrary, in contact with these parts, becomes effete, whence it returns to its sovereign, the HEART, as if to its source, or to the inmost home of the body, there to recover its state of excellence or perfection. Here it resumes its due fluidity, and receives an infusion of animal heat,—powerful, fervid, A KIND OF TREASURY OF LIFE, and is impregnated with spirits, and it might be said with balsam; and is thence again dispersed, and all this depends on the motion and action of the heart. The HEART, consequently, is the beginning of LIFE, the SUN of the microcosm, even as the 'sun,' in his turn, might well be designated the 'heart of the world;' for it is the 'heart' by whose virtue and pulse the blood is moved, perfected, made apt to nourish, and is preserved from corruption and coagulation: IT IS THE HOUSEHOLD DIVINITY WHICH, DISCHARGING ITS FUNCTION, NOURISHES, CHERISHES, QUICKENS THE

* For which he was called in derision the "Circulator."

WHOLE BODY, AND IS INDEED THE FORMATION OF LIFE, THE SOURCE OF ALL ACTION."

To this we have nothing to add, for we can say nothing that can add to its force. Truth is omnipotent, and when once the germ takes possession of the mind, it is in vain that its recipient and mankind struggle to rid themselves of the enemy of their peace. He (the recipient) may be ridiculed by the good, scouted by the foolish, persecuted by the strong, maligned by the interested, and scorned by all. Life for him may have lost its every tie. Isolated and shunned he may stand solitary and friendless, wearing his poor life out over *a single idea*. What thought GALILEO, as he knelt before the terrible Inquisition exposed in a bare shirt, of the recantation forced from his absent soul? One idea only was his, and when tyranny, fanaticism, folly, ignorance, and the powers of the earth, in weakness and fear, combined to force it back into the chaos from whence progress had called it, the whisper of the lonely persecuted man shook the foundations of error, and the world re-echoed his words "E pur si muove."

INFLAMMATION (THEORY OF).

From the remarks made it will be readily understood what our views are. The blood is the primary agent of life, the great source from whence the material of which the body is composed is derived; and in proportion to the quality, quantity, and regularity of the supply, health and disease are determined. Whatever obstructs, vitiates it, lowers the temperature, and destroys the balance upon which the harmony and uniformity of healthy life depend.

HEALTH may be defined as a condition of life where the temperature is maintained by a constant and regular supply of blood; and where the waste and repair of the body are equitably adjusted.

"Inflammation" may be defined as "obstruction" in the circulation of the blood to any particular organ or part of the body, and "disturbance" of the temperature upon which the conditions of healthy life depend. To understand "inflammation," or indeed disease in any form, it is first necessary to understand the "blood," and this cannot be unless we trace its origin and relation to the different organs which compose the body, and know the relative dependence of LIFE, HEALTH, DISEASE, and DEATH upon it. It is not enough simply to know the anat-

omy of the body, and the arrangement and distribution of the arteries. What we really require is to understand how to restore the blood, when in a disturbed or vitiated condition, to its normal or healthy state. From the time of the great Law-giver, Moses, who prohibited its use as an article of food to the Jewish people, because, as he said, "the life is in the blood," down to the present, men have speculated and written upon it *ad nauseam*, or to little purpose. What do we know even of the food that sustains us, or the medicine that relieves or cures our diseases, beyond the fact that we see certain results follow their use? We may 'know,' it is true, their chemical constituents, and to a certain extent the manner in which they are assimilated, but beyond this, nothing. The instinct of hunger, true to its purpose, when not interrupted by disease, prompts us to take food, which when prepared and passed into the stomach, is transformed, through the aid of the *saliva* and *gastric juice* into *chyme*, and then passed through the *pyloric* opening into the *duodenum*, where it receives the *pancreatic juice* and *bile*, and becomes changed or transformed into *chyle;* it then passes into the *jejunum* and small intestines, where it gives off its nutritive properties, through the absorbent vessels, in a milk-like state, which is carried into the *lacteal circulation*, and finally deposited by its duct into the *subclavian vein*, from whence it is carried by the descending *vena cava* into the right auricle of the heart, from thence to the right ventricle, and from thence to the lungs, through the pulmonary arteries, where it gives off its carbon or waste, and receives again a continuous supply of oxygen, through which it is prepared and fitted to renew the wasted tissues, and keep up that constant supply upon which life depends. It is then brought back by the pulmonary veins into the left auricle of the heart, and passed into the left ventricle, to be distributed to every part of the body. This, which is simply a very brief view of the circulation, is the "Alpha" and "Omega," or beginning and end of all that we really know. It commences with our existence, and when it ceases "life's brief candle" goes out. It is upon this that the mystery of LIFE, HEALTH, DISEASE, and DEATH depend; and whatever we may seek or presume to know beyond, however much it may satisfy our curiosity, can have but little practical use. It must not be presumed that we repudiate investigation, or condemn enquiry, or that we profess to know all that is necessary. What we desire to understand and teach, is that which is useful. Science, considered in the abstract, or apart

from what is practical, must ever be surrounded with *doubt* and *uncertainty;* but when brought within the bounds assigned to it by the Creator in the economy of life, like all truth, becomes *positive*, and readily applicable to human necessities.

"Inflammation," we have said, is "obstruction." The word comes from the Latin, *in* within, and *flamma* fire, to burn. It may attack any organ or part of the body, externally or internally; and its chief characteristics are *pain, redness, swelling*, and *increase of heat* to the organ or part affected. It may be slight, as in *Cold* or *Catarrh;* or severe, as in *Bronchitis*, *Pneumonia*, or *Pericarditis.* Under every circumstance and phase, however, whatever its cause, it is "obstruction," or a physiological effort of the body to rid itself of an incumbrance. Nature has provided outlets for carrying away the effete or exhausted matter, and these cannot be 'obstructed' without danger, nor could the body right itself at all but for this provision. Anything, therefore, that obstructs the natural or regular "circulation of the blood" induces or sets up "inflammation." Thus, a man receives a blow, say, in the eye or upon the arm, this causes an obstruction; the arterial blood, driven from its natural course, accumulates with the venous blood, which circulating in their normal or healthful state in separate or distinct vessels, are now no longer capable of vitalising or nourishing the injured part, hence the *pain, swelling*, and *redness* which accompany accidents and "inflammation" of every kind. Or, let us take the female breast in a state of "inflammation." It matters not what the cause, whether through accident, cold, or violence; we see it presenting the same *hard, red, swollen* appearance. Now here we see the beauty and harmony of the natural law upon which the "theory of inflammation" rests. The "blood" is the "agent of life," and because an 'obstruction' has taken place in a particular *organ*, or some part of the tissues connecting the *organs*, the whole system is disarranged, and the "organ" or "tissue," for the want of vitality, dies. There is DEATH in the part; we see it decay; suppuration carries off the *effete* or *dead* material; nature rids itself of the evil; and the body regains its normal or healthy state again. This we may call "local" or "partial death" *conquered by the recuperative or superior force of life.* Now, carry the idea a little further; suppose two men or two women receive a blow upon the same part of their bodies; it depends entirely upon the condition of the blood at the time as to what mischief may be done. It may be severe; but both

men are healthy and vigorous; "inflammation" rapidly sets up, and leads on to suppuration, which readily discharges and heals; the same with the two women. But supposing one of the men, or one of the women, to be of a strumous, cachectic, or scrofulous habit of body; in such case, although the blow or accident was the same, the results were altogether different; both parts 'inflamed,' the healthy vigorous man," or "woman," brought sufficient vitality to the diseased part, it suppurated, and threw the disease off: but the cachectic or diseased man or woman, was incapable of doing this; the injured part could not re-act through deficient natural vitality, the decaying matter is taken into the system, and mixed with the circulation, until complete prostration supervenes, and re-action becomes impossible. Thus we see the same external force which produced *partial* or *local* DEATH in the healthy man or woman, carried *general* or *total* DEATH to the diseased man or woman.

Now, all 'inflammation' is governed by one principle, whether it arise from cuts, bruises, colds, scalds, burns, accidents, violence, hereditary predisposition, or any other cause; and the end to keep in view is the restoration and equalization of the "circulation of the blood," for wherever a healthy and 'regular circulation' is found, there can be no disturbance; and he who assists nature to remove the obstruction and restore the balance, most readily removes the disease. The great question to consider is, "What are the natural or recuperative powers of the body, and what can the physician do to aid them?"

The medical practitioner who keeps this view of "Inflammation" before him, will not be confused by the locality or nomenclature of disease. Once again let us refer to the cases introduced by way of illustration. It will be readily seen that *partial* or *local*, as well as *general* DEATH took place from the want of a proper supply of blood; and that had it been possible to have kept up an equalized circulation through the *diseased parts* or *diseased bodies*, death, whether "local" or "general," would have been averted.*

We need add little more upon this part of our subject, nor do we see that anything we may say can throw any extra light upon it. DR. MARSHALL HALL says, "Some of the provisions of nature, or rather of the CREATOR of all things, accomplished through the medium

* *Vide* "Family Medical Adviser."

of the action and process of 'inflammation,' are quite wonderful. An abscess may form in the liver; the pus may be expectorated through the bronchial tubes, and the patient may survive. An intestine may be strangulated by being intussuscepted into another portion of the intestine; it may separate and pass *per anum*, leaving the original canal free and entire, and the patient, like the former, may survive." But these are simply evidences of the tenacity of life, and the reparative powers of the blood.

"Inflammation" may terminate in *resolution*, *suppuration*, *effusion*, *induration*, *gangrene* (mortification), and *death*.

By *resolution* is meant the cessation of swelling and pain, and restoration of the affected part to its normal or healthful condition, without lesion or suppuration.

By *suppuration* is meant the formation of pus—destruction of the part affected through decay, and renewal or restoration of the same according to the nature or circumstances of the case.

By *effusion* is meant the formation of incongruous unhealthy *lymph* and *serum* in the diseased part, and its distribution to and fusion with, comparatively healthy organs or parts.

By *induration* is meant where the "inflammation" subsides and leaves the part callous or hard; hence the *liver* and *spleen* may become "indurated," as may also the cutaneous and sub-cutaneous cellular substance, glands, lymphatic ganglions, or other parts of the body.

By *gangrene* is meant loss of vitality or mortification, insensibility, and total death of the part affected.*

CATARRHUS *(Inflammation, Catarrh, Cold).*

Description.—"There is no part," we have already said, "but is liable to inflammation." And *Catarrh*, or "cold," as it is commonly called, is an acute affection of some one or more of the mucous membranes which line the different organs and cavities of the body. If it attacks the eyes and nostrils it is called *Coryza* or "cold in the head;" if it attacks the bronchial tubes, *Bronchitis;*" if the bladder, *Catarrhus Vesicæ* or "Cystitis;" if the stomach, *Gastritis;* &c., &c. *Catarrh* or *cold* becomes epidemic at certain seasons, and is then called *Influenza*.

* For general outline of Physiology, Chemical Constituents of Food and Medicine, Chemistry of the Blood, &c., see "Introduction."

Causes.—Anything that obstructs the capillary circulation. Wet feet, atmospheric changes, sleeping in damp rooms or in damp sheets, extremes, or sudden changes from cold to heat, or heat to cold, draughts of hot or cold air, &c., &c.

Diagnosis.—Secretion of mucous from the nostrils, watering of the eyes, sneezing, slight rigors, pain in the head, difficulty of breathing, alternate flushes of heat and cold, eruptions upon the lips, irritable condition of the *fauces*, pains in the chest and back, muscular pains, lassitude, and general disturbance.

Treatment.—*Hygiene.*—In this, as in every disarrangement, the conditions of health must be considered, and the causes of the disease removed. If it arise from sudden change of temperature, whether from *heat* or *cold*, be careful to avoid rushing to other extremes. In excessively hot weather the pores of the skin are open, and exhale or throw off the serum of the blood in too large a quantity, the body as a consequence becomes exhausted, and more susceptible to disease. In excessively cold weather, particularly during the prevalence of easterly winds, or when rain and sleet prevail, the body is equally susceptible, and there is no surer or more certain method of inducing *Catarrh* than rushing into a hot room, or sitting down in front of a large fire. Every one, almost, knows this by experience, and still the error is continued.

Treatment.—*Medicine.*—In the majority of cases, *cold*, *catarrh*, and *influenza* cure themselves, that is to say, in all cases where there is *moderate stamina*, and where the system has not been, or is not, exhausted by disease. This is no reason, however, why nature should not have help when necessary, nor for making a sound constitution the *scape-goat* of ignorance. It is truly pitiful to see the numbers of intelligent useful lives that are lost through the want of the smallest *modicum* of physiological knowledge. In nearly all cases where the constitution is moderately good, *rest* and *warm dilutents* will do all that is necessary: in others, particularly when the life of a family depends upon the labour of one pair of hands, or where the mother's attention and care are constantly in requisition, the disease may be easier removed by more active measures.

It is universally admitted, by even the most advanced minds in the profession, that old or long-established popular remedies in constant use among the people of all countries are in general strong evidences of their utility. The late excellent Earl Stanhope, speaking of them, says, "The important advantages which may be derived from *popular remedies* were fully appreciated by Dr. Osiander, who composed a most instructive work upon the subject, and has collected with great industry many interesting facts. He states, as the result of his own experience in a variety of cases, that remedies *which appeared insignificant* had proved effectual when *the strongest medicines and the skill of the most eminent physicians had failed of success.* Such was also the opinion of Hoffman, who after a practice of many years, found that the remedies which he described as "vernacula parabiliora at domestica omnibus nota" (the common well-known domestic remedies) "*were far preferable, both in their power and in their utility, to chemical preparations, and accomplished a safer and more certain cure.*" As a common remedy for the cure of *Catarrh* or "cold" there is nothing equal to the following:

℞ Composition Powder..... ..... One teaspoonful.

Infuse in a pint of boiling water, sweeten with molasses or treacle, mix well, let the powder settle, and drink as freely as possible, in wineglassful doses, until the whole is taken; after which go to bed, wrap up warm, and indulge in a little extra rest, if possible. Should it be desirable to induce free perspiration (as it is in severe cases), put the feet at the same time into warm water for about five minutes.

In the generality of cases, that is to say, where the bowels are confined, a gentle aperient should be administered, and for this purpose there is nothing so truly beneficial as the "Family Pills." Two taken before, or after the medicine, will answer every purpose.

Should respiration be impeded, or the breathing difficult, prescribe as follows:—

℞ Archangelica Officinalis (Garden Angelica, dry herb) One ounce.

Infuse in a three pint jug of boiling water, place a course clean towel, folded four or six times over the top, tie it tightly down, cover the head with a blanket, and inhale the steam for ten minutes or a quarter of an hour.

The most severe cases of acute *Catarrh*, *Coryza*, and *Influenza*, readily yield to this treatment. It will be necessary to distinguish, however, the complications that may arise, and also the numerous shades or degrees it may assume in different constitutions.

One of the many popular remedies employed by the people, particularly throughout the North of England, is the Millefolium or Yarrow. A full pint of strong infusion, sweetened with treacle, to which the "Composition Powder" is added, is drank off as hot as possible, and in addition a common house brick, made hot in the fire, enveloped or wrapped in a cloth saturated with vinegar, four or six times folded, is applied to the feet. There is no objection to this, but in the generality of cases the "Composition Powder" alone answers every purpose.

The ordinary or "best treatment of *Catarrh* or Cold," Hooper (one of the highest old school authorities) says, "is by ten grains of *Dovers Powder* given over night, followed by the warm bath, or warm water to the feet, a basin of warm gruel, and a hot bed. By these means a profuse perspiration is excited, which effectually removes the febrile action. The *Dovers Powder* may be followed up next morning by a saline aperient. A drachm of *Spiritus Chloroformi* may be substituted for *Dovers Powder*. A large draft of cold water, taken at bed time, will often effectually remove a common cold. If the fever run high, the best remedy is 'tartarized antimony' in nauseating doses, and at short intervals, with cooling drinks and saline purgatives."

Of the "saline purgatives" we shall simply say they are better supplied a thousand times by the "Family Pills;" and as regards "Dovers Powder," which is composed of—

℞	Ipecacuanha and Opium in powder	ā ā ʒ
	Sulphate of Potash	ʒ

and, used purely as an *anodyne* and *sudorific*, we do not hesitate to say that its place is a thousand times better supplied by the "Powder" recommended. "Tartarized Antimony" in "nauseating doses," and at short intervals, is an outrage upon nature, and we know of no case where it is admissible. It is a most subtle metallic poison, and like all metals has a tendency to accumulate in the system. As an *emetic*, *Antimonii et Potassa Tartras* (Tartarized Antimony) from one to four grains is used, dissolved in a tumbler of warm water, of which one or two tablespoonfuls are to be given every five or ten minutes until vomiting takes place. As a *nauseant* and *diaphoretic* the dose varies from one sixth or fourth of a grain to a grain, given at intervals. One or two grains, dissolved in water, and given at intervals, act also

as a purgative. No agent that has ever usurped the science of medicine has, for the purposes for which it is employed, done a twentieth part of the mischief, and we offer our protest against the future prostration of medicine to such a delusion. There is "death" in its composition;—avoid it.

For formulas of "Family Pills," "Composition Powder," &c., &c., see "Appendix" and "Index."

INFLUENZA *(Epidemic Catarrh).*

Description.—It is little that we need add to what has already been advanced to enable the student to understand this form of inflammation, which is nothing more than an extreme condition of *Catarrh* or "cold," engendered under different atmospheric circumstances. The disease is supposed to have originated in the east, early in the 16th century, and soon after to have made its way into the north of Europe, from whence it spread westward, until it reached England; and from England it passed in a south-easterly direction to France, Spain, and Italy, and across the Atlantic to America. Its course is very similar to that of Asiatic Cholera, of which it has more than once proved the precursor. Australia has been visited by recent epidemics. The disease, in every 'epidemic,' has attacked a very large proportion (estimated at three-fourths, four-fifths, and nine-tenths) of the population, and is believed to have attacked the domestic animals. The mortality occasioned by it is considerable. In a million inhabitants of the metropolis, the registered deaths from influenza were 65 in 1844, 117 in 1841, 150 in 1851, 295 in 1848, and 572 in 1847. In this last year (1863) the total deaths from it in the metropolis were 1253."*

Causes.—Beyond what has been advanced, except that it is "contagious" (which is also sometimes the case in *Catarrh*) there is little to add. Cold easterly winds, low damp situations, peculiar conditions of the atmosphere, but of which we have no definite knowledge. It is more common to matured age than youth, and particularly with the male sex.

* *Vide* Drs. Guy and Harley, Hooper's Vade Mecum, 1864: Churchill and Sons, London.

DIAGNOSIS.—See *Catarrh*, add suddenness of invasion, greater debility, and extreme prostration, and we have all that can be said by way of 'diagnosis.'

TREATMENT.—*Hygiene.*—See *Catarrh.*

TREATMENT.—*Medicine.*—See also *Catarrh*, and follow the treatment out. There is nothing for it but *rest*, *gentle diaphoretics*, *expectorants*, and *stimulants*. Sustain the strength of the patient by every possible means, and remember the danger lies principally with the aged, feeble, and intemperate, when the attacks are severe. The great secret of cure is to look well to the complications and wait upon time. The system must possess sufficient recuperative force to throw the disease off, or if not, the "force" must be created. Should the stomach, intestines, liver, kidneys, or any other organ be affected, bear in mind that upon these the cure of *Influenza* depends, more than upon any other cause, for if they do not, or cannot be made to act, it is impossible for the blood to acquire the force necessary to remove it.

Like *Catarrh*, *Influenza*, if uncomplicated, will in almost every case cure itself. It is not so much of the disease, therefore, that we need fear, as of its "complications" and "terminations." *Pneumonia*, *Bronchitis*, *Pleurisy*, *Inflammation of the Throat*, *Diarrhœa*, *Dysentery*, *Erysipelas*, *Rheumatism of the Joints*, *continued Fever*, and even *Inflammation of the Brain* or its membranes, may all accompany or follow in its wake, the whole or any one of which may prove fatal independently of the primary attack. But then, it may be said, the disease should be classed among the "complications," which is correct so far as regards its *secondary* aspect. In its "primary," however, it is "Influenza," and as such, if death supervene, it must be registered. As far as medicine is concerned, therefore, there is little to add to that of *Catarrh*. Our patent "Pulmonary Lozenges," as an expectorant and remedy for irritable and inflamed tonsils, larynx, uvula, trachea, and bronchial tubes, should be used, from the invasion to the termination of the disease. As a preventive of the *sequelæ*, there is no simple remedy that can in any way compare with them. Keep the irritation down and raise the body up. We have no other secret of cure, nor throughout the whole of our treatment do we ever lose sight of the blood. If the patient is *plethoric*, we know the

danger of delay, and proceed at once to reduce the inflammation by removing the obstruction, and equalizing the circulation. If, on the contrary, the patient is *cachectic*, we direct our efforts, by a more gradual process, to the same end. In the one case we have the blood at our command, in the other we have to create it. Keep the air passages clear, the stomach properly supplied with such FOOD and MEDICINE as the case demands, look to the liver, kidneys, intestines, and internal viscera; see, in fact, that nature is dealt fairly with, and success is sure. Not that the most careful and skilful treatment can save life where the system is exhausted or worn out; but having done all that human effort and science can do, we have nothing to regret, and know that DEATH has not been accelerated by improper treatment, which is a consolation to the physician greater by far than any of the trifles to which so much importance is attached; and happy indeed is it for him whose practice is raised up on such a base.

A few words more regarding the "treatment," and we must pass "Influenza." Turn your attention to *Catarrh* or "Cold," and think of the old adage, "Cold is the forerunner of all other disease." Now this, in the majority of cases, is literally true. It is the "primary obstruction," which, if not removed by nature or art, is certain to lead to rapid dissolution in some violent or acute inflammatory attack, or failing in this, it will leave behind a debilitated or shattered constitution, which will gradually, but as surely, destroy life. It is easy to understand what the disease indicates, and what we are required to do. Reduce, as we have already said, the inflammation, sustain the system, and wait upon nature. Do this, and you remove the danger in all acute attacks, wherever there is sufficient stamina.

As a gentle aperient and corrector of the system generally, prescribe—

℞ Compound Powder of Leptandrin (daily), from one to two grains.

Prescribe "inhalation" also, or steaming, as recommended in *Catarrh*, wherever there is difficulty of respiration, using in change the *Mellissa Officinalis* (Balm) and *Hyssopus Officinalis* (Hyssop). At bed time, and during the day, the following may be used as drinks—

℞ Balm, Hyssop, or Calamintha Vulgaris (wild or field mint).

Either of the three in change as follows:—

℞ Of the Herb ..... One ounce.
Pulmonary Powder ..... Two drachms.

Put the herb into a quart jug, add the powder, infuse in a full pint and half of boiling water, let it stand covered for half an hour, after which strain and add sufficient lump sugar to suit the taste of the patient. Keep it warm by the fire, and take a wineglass full, or more or less, every hour, or as freely as possible, until the disease subsides.

We have merely to add that the "complications," whatever they may be, require especial attention, and that their treatment will be considered under the proper heads. It is also important to bear in mind that change of air (after the disease is removed) and good cheerful society, are excellent adjuncts to convalescence, and wherever they can be had, should never be overlooked.

For *Formula* of "Pulmonary Powder," see "Appendix" and "Index," see also "Convalescent Drinks."

BRONCHITIS *(Inflammation of the Air Passages).*

Description.—"Disease," we have said, "is a unit." It is an aphorism of ancient date, said to have originated with Hippocrates. With its 'origin,' however, we have nothing to do, but with its truth. If it be 'true' it is well to know it, with whatever advantages can be worked out by its application. We have seen that *Catarrh* and *Influenza* owe their origin to obstruction in the "capillary circulation," that is to say, the "hair-like" or terminal branches of the arteries which supply the membranes which line the cavities of the numerous organs, passages, and other parts of the body. We have also seen what its terminations often are, and know that they are nothing more than progressive advances (slow or fast) of the same diseases. The lungs fill up the cavity of the chest, and are filled with millions of tubes or air passages, commencing at the nostrils and mouth, and forming the *Nares*, *Fauces*, *Larynx*, *Trachea*, and *Bronchii*, gradually declining in their dimensions as they permeate the whole, and finally terminating in *Capillary* or *hair-like* tubes, through which the air passes continuously, and the blood is arterialized or fitted to sustain life. Of the anatomical structure of the "air passages," commencing with the *Larynx* and *Trachea*, we may briefly say, they are composed of cartilaginous rings, united by a strong elastic membrane, having a space at the back occupied by "membrane" only, in order to give room for free active respiration.

That there can be neither health nor life without the blood, we are all well satisfied; and anything that impedes or obstructs it, we know interferes not only with the healthy action of the organ or part, but with the whole body; and the vessels which supply the lungs can only act normally or healthfully so long as the blood, which is conveyed by millions of tubes (far too numerous for calculation) to the lining membrane of every '*cell*,' regularly nourish every part, and supply vitality to the whole, and we may easily understand what consequences must follow when inflammation takes place, whether in the bronchial tubes, substance of the lungs, larynx, trachea, or any part connected with the respiratory process upon which life immediately depends. The disease has been divided into *acute* and *chronic*.

Causes.—Like all disease it may have its origin in hereditary transmission, or in other words, a "predisposition" originating in *germinal* causes. But whether we accept or reject this theory, the truth remains. A low state of vitality at any period of life may develope it. Here is a child born of apparently healthy parents, it looks well nourished and healthy, but is subject to slight attacks of "Inflammation of the Chest," which it finally grows out of, arrives at manhood or womanhood, marries and gives birth to children. In such a case, the chances are that the latent predisposition which has slumbered from childhood (particularly under unfavourable circumstances) may manifest itself, and terminate in *Bronchitis*, *Pleurisy*, *Pneumonia*, *Phthisis Pulmonalis*, *Hæmoptysis*, or some other form of disease connected with the primary or original cause. This, although remote, must be attended to; or depend upon it we shall miss our way. As regards other causes, we cannot overlook the latent disposition created by the "terminations" or *sequelæ* of measles, scarlet fever, whooping cough, and particularly through the most irrational and detestible practice of vaccination. The more immediate causes may be summed up in the word "obstruction," no matter whether from exposure to "cold," extreme physical exertion, such as *running*, *jumping*, *wrestling*, *boating*, or any other of a similar character.

Diagnosis.—Anatomy, Physiology, and Pathology have done much to enable us to understand the structure, functions, and composition of the different organs of the body, whether in health or

disease, but *little, very little* indeed, for *therapeutics* or the science of curing.

The sounds produced by the healthy action of breathing are as familiar to our ears as "household words," and equally so the 'sounds' given off throughout every form of disease to which the organs immediately connected with respiration are liable.

Acute Bronchitis commences with a hot dry skin, rapid and full pulse, oppression at the pit of the stomach, wheezing, short and difficult respiration, spasmodic cough, pain in the head, tongue coated, &c. In the course of a few days, a frothy mucous is expectorated, which becomes thick and stringy as the disease advances. In its early stage the patient sleeps little, and with difficulty; as the disease subsides, however, free expectoration sets in and sleep follows.

It will be seen from these results what the disease indicates, or in others words, what we are called upon to do. Subdue the inflammation, equalize the circulation, and help the body to sustain itself. "The old string," methinks we hear some of our professional *confreres* say, "Have you nothing new to tell us?" We answer, No,—"truth" is ever "new," and cannot be too often told. This, we say, is the work which the physician is called upon to do. Why is it that the breathing is so difficult during the inflammatory stage, and the sounds dry? The answer is, because the blood has ceased to nourish the elastic tissues which hold the cartilaginous rings in *situ*, and that they cannot, as a consequence, relax and contract.

In *Chronic Bronchitis* this same diagnosis holds good, with the addition of increased morbidity. It is, in general, a *sequelæ* or termination of an acute attack, most common in the winter, confined more particularly to the aged, and often difficult to distinguish from *Asthma*. In severe cases, where the body is much wasted by excessive expectoration and continuous irritability, the air passages enlarge, or *emphysema* (swelling of the air cells) takes place, which, from general weakness and increase of mucous, there is no power to remove, and the patient dies suffocated.

There is a condition of *Bronchitis* called *Plastic* or *Bronchial Polypi*, distinguished by a particular expectoration, where the fibrinous matter thrown off is moulded into the form of the tubes in which they have been deposited, similar in character to the secretion thrown off from ulceration of the *frontal sinus*, when passed through the nasal openings, but considerably smaller. *Hæmoptysis* generally accompanies

it, and, although not necessarily fatal, it is obstinate and difficult to cure.

TREATMENT.—*Hygiene.*—Look well to the apartment in which your patient is located, take care to see that it is well ventilated, and be careful to keep up an even and moderate temperature. Avoid extremes, either of heat or cold, for both are equally injurious. Examine the case, and satisfy yourself of its character. Consider the age and stamina of your patient, and condition of the disease. Is it a *sequelæ* of *Catarrh* or *Influenza*, or a true form of the *Acute Bronchitis?* These are points to be settled, if possible, at once, for upon them and similar considerations the chances of recovery can only be determined. The *prognosis*, in fact, cannot be formed with anything like accuracy unless this is done.

TREATMENT.—*Medicine.*—We presume that we are treating the disease in its 'acute' form, and that the constitution is not broken down with age, or through other diseases. In such a case order at once a "Medicated Vapour Bath;" and as a medicine prescribe—

℞ Anthemis Nobilis (Chamomile herb, dry) .... One ounce.
Lobelia (herb, in powder) .... One drachm.

Infuse in a pint of boiling water, let it stand until sufficiently cool, strain off clear, sweeten with molasses, keep it warm, and give in wineglassful doses every quarter of an hour, until the whole is taken.

Emesis or vomiting will follow, possibly after taking the first three or four glasses; take the whole, however, in order to keep up the action of the skin and relax the system generally.

HOOPER, from whom we have before quoted, says, "In very acute attacks, occurring in persons previously in strong health, general bleeding from the arm, followed by *tartar emetic* in nauseating doses, *may be necessary.*" "May be" is certainly rather indefinite, and so far as we can see, not only *obscure* but altogether doubtful. We have simply to wait upon nature, and remove whatever obstruction stands in the way; nor is there anything so well calculated to accomplish this as the "Medicated Vapour Bath" and medicine recommended. DR. J. KOST, of the Medical Society of New York, and author of several very able works on "Materia Medica" and "Therapeutics," speaking of the advantages of this treatment,

says, "In very severe and threatening cases of the disease *(Bronchitis)* the "Vapour Bath" is indispensable to a quick recovery. It is best to use it immediately before the administration of the emetic. The relief that is obtained in lung affections by this means is astonishing to all that are unacquainted with the therapeutic effects of hot aqueous vapour. *All the benefits usually expected from blood-letting* may be secured by the "Vapour Bath," and that without any sacrifice."

As an *expectorant* and *relaxant* no agent that we know of can in any way compare with *Lobelia*. That it is anything but pleasant to take we readily admit, but where life is at stake this is the smallest consideration.

As a daily medicine prescribe—

℞ Hyssopus Officinalis (Hyssop herb, dry) ..... Half ounce.
Althæ Officinalis (Marshmallow herb, dry) ..... Half ounce.
Lobelia (herb, in powder) ..... Half drachm.

Infuse in a pint and half of boiling water, let it stand covered for half an hour, after which strain clear, sweeten with honey, keep warm, and give a tablespoonful every hour throughout the day.

The following is equally efficacious, and may be used instead of the above, or in change, as convenient.

℞ "Pulmonary powder" ..... Half ounce.
Asclepis Tuberosa (Pleurisy root) in powder ..... Quarter ounce.
Althæ Officinalis (Marshmallow root) in powder ... Quarter ounce.

Triturate or mix the whole with two ounces of finely powdered sugar, infuse in a full quart of boiling water, cover, and let it stand an hour, after which strain clear, and give as the last.

Keep the bowels comfortably free, and for this purpose there is nothing equal to the "Family Pills." Two daily may be taken so long as the disease remains unsubdued, or even for some time after. Their influence over inflamed mucous surfaces, in connection with the medicines and means recommended, is truly surprising.

The "Medicated Vapour Bath" is beyond comparison one of the readiest and best means of reducing inflammation known. Where it is not convenient or cannot be carried out, however, the next best means is to envelope the body in a thick blanket, and put the feet at the same time into a strong infusion of *Hyssop*, *Angelica*, *Balm*, or *Yarrow*, from ten to fifteen minutes; after which apply bottles of hot water to the feet and sides. The patient should, as soon as this is

done, be placed in bed in a sitting posture, well supported with pillows, whilst the following (local) "Medicated Vapour Bath" is being applied:—

℞ Mellissa Officinalis (Balm) ..... One ounce.
Thymus Vulgaris (Thyme)..... Half ounce.

Infuse in full two quarts of boiling water, in a narrow-mouthed pan or large jug, envelope the head and shoulders with a thick blanket, place the "pan" or "jug" under it, in close proximity with the mouth, and let the patient inhale or breathe the steam as freely as possible for full ten minutes or more.

The object sought to be obtained is to reduce the inflammation by inducing free diaphoresis, or perspiration.

It is important to remember that free expectoration must be encouraged, and to meet this, the "Patent Pulmonary Lozenges" should be used freely. They are truly a beautiful preparation, perfectly harmless, and cannot be too widely known. For coughs, affections of the chest and respiratory organs, whether of MAN, WOMAN, or CHILD, they may be used with equal advantage.

As regards the treatment of *Chronic Bronchitis*, there is little to add; that little, however, should be known. The "acute" condition of the disease, we have already said, is most common with the young, or those in whom neither age nor disease have made any serious inroads. The "chronic" is either a *result* that has grown out as a sequelæ of some other disease, or of age itself; and common sense must tell us that we are powerless to do more than alleviate or relieve; for in the majority of cases, where an "acute" attack supervenes upon a "chronic," the disease is greatly complicated, and the chances of success seriously reduced.

The "Emetic," which, in connection with the "Medicated Vapour Bath" and other medicines does so much in *Acute Bronchitis* if given in complicated cases as these are, might doubtless do more harm than good, not because the medicine itself is bad, but because it is given when not admissible. Bread and beef are excellent for the healthy, but to the sick most mischievous.

In treating *Chronic Bronchitis* our first consideration must be the state of our patient. If there is sufficient *stamina*, and we can venture upon the "Emetic" and means recommended, we may do so with every chance of success; if the vitality is low, however, or age and hard work have all but exhausted the system, deal with your patient as you would with a child. Prescribe the "Patent Pulmonary

Lozenges" as freely as they can be taken, apply infusions of herbs to the feet, and the local "Medicated Vapour Bath," with small doses of the same medicine. You are dealing with the debilitated or aged, remember, and must regulate the treatment to suit the case. We have nothing more to add, except to say the diet should be light and nourishing.

The following is a beautiful preparation, which may be obtained ready at hand, or be prepared immediately by the attendant.

R Ulmus Fulva (Slippery Elm) in fine powder ..... One ounce.
Finely powdered Lump Sugar ..... Six ounces.
Cinnamon Powder ..... Twenty grains.

Triturate or mix until the whole is well incorporated. Put a teaspoonful into a teacup, fill with boiling milk or boiling milk and water, gently stirring it as the 'milk' or 'milk and water' are poured on. It is then made, and may be taken as often and as freely as the condition of the stomach will admit.

PLEURITIS, PLEURISY, *(Inflammation of the Pleura.)*

Description.—The nomenclature of disease is determined chiefly by the organ or part of the body affected. The pleura is a serous membrane or closed sac, enveloping the whole substance of the lungs, and surrounding the cavity of the chest. It is liable to inflammation as every other part of the body, hence the name. It has its gradations as all inflammatory disease, and may terminate in *resolution*, leaving little or no bad results; in *adhesion*, or union with some part of the chest; or in *effusion*, leading to *Hydrothorax* (water in the chest) or *Empyema* (matter in the chest). It is divided into *acute* and *chronic*.

Causes.—As in *Bronchitis*, there can be no two opinions with practical men, regarding either its predisposing or exciting causes. At a certain period of life a man is attacked with *Pleurisy*, for which he is unable to account; if we carefully trace it, however, we shall find in the majority of cases that his father or mother, about the same time or later in life, suffered or died from an affection of the lungs. How it is that the germ should retain its original character and develope itself in this way we may never understand; that it does so, however, we very well know. What the subtle essence is which we call "life," is beyond the grasp of the human mind, but that the

latent and peculiar germinal conditions of "life," whether in health or disease, are capable of being transmitted, is beyond dispute.

The same causes that induce *Bronchitis* may also 'induce' or set up *Pleurisy* or any other form of disease having a similar character. It is to the peculiar idiosyncrasy of the individual or internal forces, rather than to external causes, that we must attribute *Pleurisy*. Independently, however, of these considerations, there are immediate or active causes, such as severe and sudden atmospheric changes, external injuries, particularly of the ribs, muscular exhaustion from running, jumping, wrestling, fighting, boating, cricketing, and over-exertion generally. It may be also occasioned by close confinement, or working in ill-ventilated rooms and factories. The blood deprived of its oxygen, cannot sustain its normal force, and the disease is set up by a gradual process of exhaustion, and developed by "trifles light as air."

Diagnosis.—Pains in one or both sides of the chest, near the centre, which gradually increase and extend to the upper and sometimes to the lower, until every part is affected. It is attended with a sharp cough, generally short and dry, but at times followed with an expectoration of thick, frothy, mucous; the breathing is quick, and catching, the pains acute and shooting, pulse hard and chord-like, cheeks flushed, skin dry and hot, tongue covered with a thick white coat, urine high-coloured and scanty.

Treatment.—*Hygiene.*—See *Bronchitis,* pages 287 to 293, and follow the directions carefully out.

Treatment.—*Medicine.*—If the student has carefully considered the treatment of *Bronchitis*, he will find no difficulty in understanding this. He will remember that "disease is a unit," that there is no life apart from the blood, that the cough, difficulty of breathing, and pains are the evidences of what is going on,—the monitors or guardians of life which convey notice of danger, and warn us of the consequences that may follow neglect or want of proper treatment. Consider the condition of the patient, and subdue the inflammation by the exact same means and in the same way as that of *Bronchitis*, and in addition, prescribe the following as a cataplasm or poultice to the part of the chest affected.

℞ Ulmus Fulva (Slippery Elm powder) .. Sufficient for the purpose.
Mustard ..... One fourth part only.

Mix in boiling water to a proper consistency, spread between cloths, fasten on with a proper bandage, and keep it there so long as it can be borne without producing severe pain, the whole night, if possible.

There is nothing more to add, whether we are treating the disease in its acute or chronic form, than what has been stated in *Bronchitis;* follow the same treatment out in fact. Consider in everything you do the stamina of your patient, use proper discretion, and do all that reason can suggest, conscience justify, or science accomplish.

One can scarcely believe that error once established would cling with such tenacity to mankind, if experience had not proved it a thousand times over. Take for instance the treatment even now recommended in standard medical works;* and for the honor of medicine, our readers we feel assured will believe us when we say, that the men who can write or practice according to such principles, know little of what they teach, and less of what they do. There is death in it from beginning to end, and it is useless to tell us the treatment is obsolete, when every new edition brought out and passed into the hands of students, is ushered forth with fulsome critiques from the medical press.† That they never read the works they criticise is pretty well known, or if any, a very small part of the introduction or preface only. In the 'work' now before us, seventh edition, 1864, the authors, or rather the commentators and modern editors of the original work, published in 1823, say,—"A work to which the name of Dr. Hooper is attached, *must, of necessity,* find its way into the hands of many readers. This consideration gives to it an importance which would not otherwise belong to it; and it is this which induced the present editors to undertake the task of preparing it for the press." That is to say, the work *sells well*, is *reviewed well*, and *pays well.* They then say,—"The editors must acknowledge their obligations to the following authors, whose works, referred to in the text, have

* "In the robust, full bleeding from the arm to the approach of *Syncope*, followed immediately by full doses (from a quarter to half a grain, or even more) of tartarized antimony, every one, two, or three hours, brisk aperients, and a strict antiphlogistic (low) diet. For slighter degrees of inflammation, cupping and leeches may be prescribed. The "tartarized antimony" may be usefully combined with calomel. The one keeps up the effect of bleeding until the other, by slightly affecting the system, puts a stop to the inflammatory tendency."

† See Guy and Harley's edition of "Hooper," 1864.

afforded them valuable assistance:—To Drs. Aitkin, Beale, G. Budd, Brinton, Brown Sequard, Donders, Frerichs, Jenner, G. Johnson, Garrod, F. Küchenmeister, Liebreich, Merchison, Trousseau, Tweedie, T. Watson, C. West; to Professors Siebold and Virchow; and to Messrs. J. W. Hulke and H. Lee." Whether the editors, Dr. W. A. Guy and Dr. John Harley, of King's College, approve of the work as a whole, is not for us to say; or whether the whole of the gentlemen (English, German, and French,) whose names are quoted as authorities accept and practice it, is not for us to know. We do know, however, that the celebrated Dr. Watson, one of the physicians who attended the late excellent PRINCE ALBERT, repudiated the practice, and that before retiring into private life, he condemned entirely that which he had taught in his lectures and followed during a long professional life.*

PNEUMONIA, *(Inflammation of the Lungs).*

DESCRIPTION.—If the student has made himself master of the "Theory of Inflammation," "Circulation of the Blood," "Bronchitis," and "Pleurisy," he will find no difficulty in understanding this, inasmuch as it is nothing more than a variety of the same disease, that is to say, inflammation seated in the cellular tissue and substance of the lungs, instead of the *air-passages*, as in *Bronchitis*, or the *pleura*, as in *Pleuritis*. Sometimes the three are complicated, so that it is difficult to distinguish one from the other. It is often the precursor to consumption, and those who have once suffered, if with any severity, are at particular periods more or less liable to renewed attacks.

CAUSES.—Sudden atmospheric changes, acting upon plethoric and predisposed constitutions, a low state of vitality, particularly among the poor in our thickly and over-populated cities and towns; violent exertion, (see *Bronchitis)*, tubercular deposits, sleeping in badly-ventilated rooms, working in confined air, knife and fork grinding, stone cutting; or in flour mills, cotton mills, or any other kind of employment that deprives the blood of its oxygen, and poisons the fountain of life.

DIAGNOSIS.—Like all inflammatory disease, it generally commences

* See page 140 of the present work.

with coldness and shivering, followed by symptoms of fever, head-ache, thirst, quick pulse, short dry cough, slight expectoration of mucous, which changes or gives place in the course of a day or two to a tough brown adhesive sputum. If it is of a mild character, it generally yields to proper treatment in the course of a few days; in its more violent form, however, it bids defiance to the very best exertions, and passes rapidly into a hopeless condition. In such cases the disease puts on increased strength, the breathing is more difficult, the expectoration much more stringy and tough, and often streaked with blood; the tongue becomes dry and covered with a brown coat, pulse small and tremulous, breath fœtid or very offensive, increased debility, cessation of pain, countenance pallid, skin cold and wet, coma, death.

TREATMENT.—*Hygiene.*—(See *Bronchitis*, page 290.)

TREATMENT.—*Medicine.*—In plethoric patients, wherever the constitution has sufficient stamina, there are no remedies so efficient as the "Medicated Vapour Bath" and "Emetic." In delicate constitutions, however, we must be careful not to exhaust the system by overtaxing the strength. To say more by way of treatment than what we have already advanced in *Bronchitis* and *Pleurisy*, would be all but a work of supererogation. To show, however, the agreement between men truly eminent in their profession, and the mass of those who are content to follow wherever fashion and folly lead, we shall quote from two of the most practical men that ever honored the science of medicine. HUFELAND lived to a great age, and celebrated the jubilee of his doctorship in 1833. Speaking of "Emetics" in *Pneumonia*, he says:—"I remember the time when the only treatment in *Pneumonia* was *bleeding*; again, when we had recourse to *Opium* and *stimulants*; lastly, when nothing but *leeches* and *calomel* were in vogue; but at all these periods I have seen this great truth made evident, that there are cases wherein every treatment fails, except that by vomits." He then relates several striking examples that came under his own observation, one of which was the following:—"A distinguished universally-venerated Princess lay until the eleventh day of a pulmonary inflammation *(Pneumonia)*, accompanied with a miliary eruption (see page 236). Her physicians had used all the remedies that were proper to the case, without success; danger had reached the highest pitch, and her recovery was doubted. A foreign physician, who had been sent for,

ventured, in spite of the apparently fatal weakness, to order an 'emetic.' She vomited, and this was the signal of her recovery. *This single emetic made him her physician in ordinary.*" Now, if we were to relate how many similar cases had come under our own notice, and the cases that had come under the notice of many others who hold similar views and practice agreeably, we should encroach pretty freely upon our space; to which we may add, "if everyone who had met with the same success had been made 'Physician in ordinary' to some European Princess, there would be no lack of 'extraordinary' *physicians.*" For every life saved in the same way, however, the most extraordinary thing is, that he who saves the life is too often treated as a charlatan, rather than as a 'physician.' He "saved a life" without legal authority, *ergo*, he is a "quack." Is not the world full of "extraordinary" things? In proof of the value of "Sudorifics" and "Emetics," however, we quote from Dr. W. Beach. "In treating *Pneumonia* on scientific or correct pathological principles, our first object will be to divert the blood preternaturally accumulated from the pulmonary vessels. It has receded from the surface and passed to these organs; and the consequences are *congestion*, *irritation*, and *inflammation*. The abstraction of blood, instead of removing the obstruction, tends only to cause debility, and consequently lessens the vital powers upon which the restoration depends. The torpor and stricture of the cutaneous exhalents must be removed, and the circulation equalized. The object of the physician is to assist, not to retard, nature. For this purpose, if called to prescribe in the early stages of the disease, vitality or heat must be imparted to the feet and surface by means of the "Medicated Vapour Bath," or *spirit bath*, (see "Index"). In this, as in all inflammation, it will be necessary in the incipient or first stage, to produce free and copious perspiration by administering sudorific medicines; and to accomplish this object, an excellent method is to steam the patient over bitter herbs." * * "After administering a full and thorough 'emetic,' broken doses of the plant (Lobelia) may be given every three or four hours, sufficient to cause slight nausea, to be followed by a cup of warm herb tea, such as bone-set, horehound, &c." This celebrated medical reformer, after giving his opinion and experience of the great advantages of the reformed system, which he practised and taught for so many years, quotes the following from the *Western Medical Journal*:—

"If in the whole range of diseases to which the human organism

is subject, there be *one* which *seems* to present the indications of treatment most likely to be fulfilled by the use of antimony, calomel, and the lancet, that one is *Pneumonia*. The old-school doctor virtually says,—'Take these three remedies from me and I am powerless—I am Sampson shorn of my locks—I am weak like another man;—*In all other diseases take these from me, but not in this; here, they are my all.*'" "This," says BEACH, "is really true. Meet the old school upon their chosen ground—attack them in their stronghold—storm their Gibraltar—rout them, horse, foot, and dragoons, upon this field, and the whole is ours. If we can shew that these remedies [agents of death, *Ed.*] are not only useless, but positively injurious in that disease where they are claimed to be indispensable, I think we can have no hesitation in discarding them in all other cases. Here the whole amount of blood which the system contains is being largely and constantly brought into contact with the irritated and inflamed organ, permeating its tissues, adding, as is claimed, fuel to the already intense fire which is consuming its vital energies. Here, the pro-lancet physician bleeds upon his conscience, as if the blood of his patient would surely ooze from his cadaverous body and remain for ever as spots upon his own skirts, if he did not snatch him from certain impending death by drawing his blood and scattering it to the winds of Heaven, as if he were culpable, if his first act were not to depress the vital energies already struggling fearfully against the inroads of disease. Here too the *Currus Triumpalis Antimonii* (Triumphant Car of Antimony: from Basil Valentine's work) has ample room and verge enough to exhibit itself in all its glory. Its sedative, its antiphlogistic, its diaphoretic, its expectorant powers may be brought into full exercise, and show their astonishing effects in arresting this formidable disease. Calomel also, with its capability of regulating the liver, with its property of favouring absorption of the exuded lymph, with its alterative or allopathic property of changing the vital actions, is here imperatively demanded by the old theory. Accordingly, if you wish to recall the beauties of the worthy *trio* of *heroic* miscalled 'remedies,' go witness the treatment of a case of *Acute Pneumonia*. First, you shall see the wretched luckless wight who becomes the hopeless victim of this murderous practice, panting for breath: yet he is bled *ad deliquium*, which means until he cannot breathe at all, but falls lifeless to the earth; next, you shall see him purged with calomel; next nauseated with antimony; then, that he may drink to the very

dregs the cup of physical suffering, his anguish is increased by blisters, tartar emetic, sores, and foul putrid ulcers. If he has a constitution of brass, he may for ten or twelve days endure the tortures of this worse than inquisitorial cruelty, and then crawl from his bed, the ghost of his former self, and for a few months or years stalk abroad, the marks of the rack being borne upon every limb, the subtle poison incorporated within every bone and nerve and muscle, until he sinks out of the sight of men, another of the untold number of victims of an erroneous and pernicious theory of medicine. Every cure, so called, is a monument of disgrace; the pale countenance, the hurried respiration, the tottering gait, the ruined constitution, not alone the result of disease, but the effect of pernicious treatment." "But this 'picture'" it may be said, "is overdrawn." We do not think so, and if we quote it it is because its broad outline and truthful shading are in all respects true to the letter. "But it is not the present practice" it may be retorted, "and therefore it is imprudent, to say the least, to introduce it." We reply, it is. In the disease under consideration, in HOOPER'S work now before us, and in almost every 'work' having any pretension to medical orthodoxy, the same horrible treatment obtains.

The authors from whom we have already quoted, speaking of the treatment in *Pneumonia*, say:—"During the first stage, or that of *congestion*, and in *plethoric and vigorous subjects*, *blood* may be taken from the arm; the *bleeding* to be followed by a brisk aperient, and by *Tartarized Antimony*, in half-grain doses, at intervals of one or two hours. The quantity may be increased to a grain, or even more, and it may be advantageously combined with *Calomel*. Half-grain of *Tartar Emetic* with *two of Calomel*, may be given every *one* or *two hours*, and *Mercurial Ointment should be rubbed into the armpits and groins until the gums are affected*. This treatment, proportioned to age, may also be employed in the *Pneumonia* of infants. In less vigorous subjects, local depletion by *leeches*, or *cupping*, will suffice; and in weakly persons, counter irritants, without general or *local abstraction of blood*. In the second stage, or that of hepatisation (when the lung has become hard), *local bleeding*, by *cupping* or *leeches*, followed by a strong blister, will be required, and *Calomel* and Opium should be given frequently, so as to affect the gums. If, however, there be high fever, the *Tartar Emetic* may still be continued in combination with the *Calomel*;—but if typhus symptoms have already

supervened, stimulants are called for, such as Ammonia and Brandy." No stronger evidence can be given of the truth of Dr. BEACH's remarks, and of the necessity of still pushing on the work of "Medical Reform," for few not actually engaged in medicine can have any idea of the terrible results that follow the depletive practice, and abominable drugs so extensively employed; nor is it possible to do justice to society without fully exposing the system which consigns (under the misnomer of "Medical Science") thousands annually to untimely graves.

We shall merely remark, in conclusion, that it is all but impossible to mistake the indications of the disease. In all "acute" cases subdue the inflammation by means adequate to the patient's strength; and for this purpose the "Medicated Vapour Bath" and "Emetic" surpass all other. As an expectorant, prescribe—

℞ Asclepis Tuberosa (Pleurisy root, in powder) ..... Half ounce.
Lobelia herb, in powder ..... Two drachms.
Liquorice root, in powder..... Two drachms.

Mix. Infuse in a pint of boiling water, let it stand covered up one hour, after which, carefully strain, sweeten with lump sugar, and give from a teaspoonful to a half tablespoonful every hour. Keep up, in fact, a moisture upon the skin, free expectoration, and attend to the bowels. Do this, sustain the strength of your patient, and you do all that is really necessary.

The following, as a "Stimulating Liniment," may be applied during the inflammatory stage, if more convenient than the "cataplasm" recommended in *Pleurisy*, (see page 295):—

℞ Oil of Mustard ..... One drachm.
Proof Spirit of Wine..... One ounce.

Mix well, saturate a soft cotton cloth, lay it over the part affected, cover with oiled silk, fasten with a bandage, and keep on as long as it can be borne.

To relieve the bowels daily, prescribe—

℞ Rheum European (English Rhubarb, in powder)..... Twelve grains.
Podophyllin ..... Three grains.
Ginger, in powder ..... Six grains.

Triturate, or well mix. Divide into seven parts, and take one part daily. See "Daily Medicines" in *Bronchitis*. (page 291) and prescribe in change as most convenient.

It will be seen from the Description, Diagnosis, &c., that *Pneumonia* is often complicated with other diseases. In such cases it is

necessary to attend to them, or the consequences may become serious.*

*We insert the different *sounds* of these three *diseases* in a "note," not that there is any great practical good to be derived from the study, so far as "curing" is concerned. To distinguish and describe them, however, enables the student not only to master the nomenclature of pathology, but 'pathology' itself, and puts him upon a level with those who, in this particular branch of medicine are generally well up. To detect the different sounds, the student must apply his ear directly over the part of the chest affected, or employ a *Stethoscope*. It is the fashion to use the latter; but where delicacy does not interfere, or other causes, the former (if the ear is healthy) is by far the most certain.

In Bronchitis, the patient, in order to obtain as free an expansion of the chest as possible, is compelled to resort to a sitting posture, a position most favourable, for on applying the *Stethoscope* or the *Ear* the obstruction will be at once detected. The *wheezing whistling* sounds tell us in what part the inflammation and obstruction are the greatest, and the *sonorous rhonchus* sounds (loud, deep, dry, crepitating) confirm our first impression as the air is expired. It is easy to understand, when inflammation is set up in any part of the lung or lungs, that the elasticity must be more or less lost, and that the variation and diversity of sounds, as respiration goes on, must be determined entirely by the condition of the disease for the time being. In health, the breathing is free and easy, and the chest, like every other part, does its work in harmony with the whole body. As the inflammation is subdued and expectoration sets in, the sounds change from the "dry crepitating" to a moist *rale*-like, or *mucous rattling* sound, which is increased or modified in proportion as expectoration is promoted, and the inflammatory condition abates. As age advances, or when the disease becomes "chronic" *Emphysema* (swelling of the lungs from confined air, &c.,) and increasing "dyspnœa" (difficulty of breathing) are present, hence the sounds vary. If the expectoration is free, *gurgling* (from accumulated mucous in the air cells) will be heard, and *Pectoriloquy* (passing of the voice directly from the chest to the ear), short quick breathing from the *Trachea*, or *Amphoric* 'breathing' (blowing sound as if into a vessel). In these cases the disease has passed from *Bronchitis* into either "*Dry*" or "*Humid*" *Asthma*.

In *Pleuritis*.—If uncomplicated with other disease, *friction* or dry rubbing *sounds* (from the inflamed condition of the pleura) will be detected; with *feeble respiratory murmurs* (from diminished motion of the chest), difficult respiration and pain. Should adhesion of the pleura take place, however, these sounds cease.

In *Pneumonia*.—If the inflammation is seated near the surface, a dull sound will be detected over the inflamed part; if deeply seated, a slight *crepitation* (crackling), "Tracheal" and "Bronchial" (breathing from the Trachea and Bronchia). As the disease advances, if favourable, these give place to *mucous crepitation* or moist sounds, caused by the subsidence of the inflammation and free expectoration. Should the disease not terminate favourably, however, and the lungs become *hepatised* (like a piece of liver) the dull sounds "Bronchial and Tracheal," breathing will be more distinctly marked; and if suppuration supervenes, *pectoriloquy*, *amphoric breathing*, and *gurgling*, from accumulated pus in the cavity, will be detected. The disease is much oftener seated in the lower lobes than in any other part, and the sounds are easier detected at the sides and back of the chest than in front.

LARYNGITIS *(Inflammation of the Larynx).*

DESCRIPTION.—*Acute.*—From the facts already stated, relative to the "circulation of the blood" and the general character of inflammation, there will be no difficulty in understanding this. In health, every organ and part of the body act in concert; in disease, every part is more or less disarranged. In the disease now under consideration, the capillary vessels which convey the blood to the *Larynx* are incapable of performing their functions. *Inflammation* or *obstruction is present*, and our business is to remove it.

CAUSES.—In this, as in all other forms of *inflammatory* disease, strong *predisposing causes* may exist; indeed there are many persons so exceedingly susceptible to throat disease, that they scarcely dare expose themselves to the slightest change. In the majority of such cases, the parts have been weakened by previous attacks, which, in nine cases out of every ten, have been treated *secundum artem*, that is to say, with Calomel, Tartrate of Antimony, Nitrate of Silver, Blisters, Leeches, &c. Apart, however, from these, the exciting or immediate causes are such as are common to all 'inflammation'; exposure to cold, wet feet, atmospheric changes, confinement in hot ill-ventilated rooms, workshops, factories, &c. There are cases, however, where it is simply the precursor to some other disease, such as *Small Pox*, *Measles*, *Scarlatina*, *Erysipelas*, or *Diphtheria*, and others, where it supervenes or follows as a complication. It has been divided into *Acute* and *Chronic*.

DIAGNOSIS.—*Acute.*—In "Inflammation" the same or similar manifestations may be noticed. A restless uneasy feeling, sometimes for two or three days, accompanied or followed by slight *fever*, and alternate fits of *cold* and *heat*. To know this as a general truth, applicable to every form of "Inflammation," is to possess a power surpassing all other, for not until the disease has passed through the primary stage can the physician tell in what part it is actually located, and the time lost from the invasion of an attack to its development is of the greatest importance to the patient; nor is it too much to say, more lives are lost for the want of this knowledge, than from any other cause. Presuming, however, that "Acute" *Laryngitis* is fully developed, the *diagnosis* cannot be mistaken. The voice is husky, rough, and dry,

the respiration difficult, deglutition painful, and cough troublesome. Examine the throat, and note the condition of the *Tonsils*, *Fauces* and *Glottis*, for all the parts are more or less implicated. As the disease advances, these symptoms increase, articulation and deglutition are arrested or carried on with difficulty; respiration is so greatly impeded that it can be performed only when the patient is propped up with pillows; the pulse, which in the beginning of the disease was hard and full, is now rapid and feeble; the lips lose their colour, the countenance its expression, and, as the sufferer struggles and gasps for breath, death mercifully comes to his rescue. In severe cases, and more particularly where the treatment has been improper, 'death' may take place within a week from the invasion of the disease, or in four or five days after its development.

TREATMENT.—*Hygiene.*—Of the value of *hygiene* in the prevention and treatment of disease there cannot be two opinions; indeed we may truly say it is in every respect equal to that of medication. What, then, is the general condition of our patient, and what the predisposing or immediate cause or causes? These, although trifling in appearance, are of immense importance as regards the treatment. It is but little that need be said of this, however, seeing that we have treated it freely in *Bronchitis*, *Pneumonia*, and *Pleurisy*, diseases to which the student will do well to refer, for the study of *one* cannot be clearly understood without the *other*.

TREATMENT.—*Medicine.*—What are the indications of cure which the disease presents? The capillaries or smaller blood vessels that supply the parts with vitality, are all more or less in a state of congestion, and how to restore them to their normal or natural condition is what now concerns us. If the disease is in its latent or incubative stage, that is to say, if it is not fairly developed, and we are in doubt as to what it really is, or in what part it is located, there is no necessity for waiting. What we are required to do is, to treat it as we would any and every case of inflammation during its invasion. Bathe the feet and the whole of the body in a strong infusion of Wormwood *(Artemesia Absinthium)* or Feverfew *(Matricaria parthenium)*. Wipe the skin dry, put the patient into a comfortable bed, in a properly ventilated apartment, and prescribe—

℞ Capsicum, pulvd. (powdered Cayenne Pepper) ..... Three grains.
Podophyllin ..... One grain.

Triturate or mix well, and give in a little simple syrup or preserve; after which, prescribe—

℞ Archangelica (Angelica Officinalis, herb, dry, *Garden Angelica*) ..... One ounce.
Capsicum, pulvd. ..... Ten grains.

Infuse in a pint of boiling water, cover, and let it stand twenty minutes, strain, sweeten with treacle, and give in wineglassful doses every ten minutes, until the whole is taken. This will induce free perspiration, which should be kept up for three or four hours, after which, the bed-clothes should be removed, and their place supplied with others, dry and warm. The patient's night-clothing should also be changed.

Whatever the form of inflammation may be, this is the proper treatment. It is simple, and so effective, that in ordinary cases little more is needed, and when it does not prevent the complete development of the disease, it reduces it to a condition from which no danger need be apprehended; but if we are not called until the disease is fully developed, the treatment must be more active. Prescribe a bath of Angelica herb, and relieve the bowels with the above powder, or if the throat will not admit of its being taken, prescribe as *Enemata*—

℞ Ulmus Fulva (Slippery Elm, in powder) ..... Two drachms.
Sugar (in fine powder) ..... Two ounces.
American Mandrake (Podophyllum Peltatum, in powder) ..... Ten grains.

Mix well, until the whole is well incorporated, after which, pour on a half-pint of warm water, gradually stirring it the while.

In every case of inflammation, no matter where located, or by what name it is called, the bowels must be attended to, and where it is not possible to act through the stomach, an *Enema* or Injection may be used with the same advantage. Presuming that this has been done, our next indication is to equalise the circulation, or carry the blood through the congested vessels. (See *Bronchitis*, pages 291-2-3, and prescribe the "Local Steam Bath" there recommended.) We are to remember that the inflammation is seated in the *Larynx*, or upper portion of the passage through which the air is conveyed into the lungs, and that death is certain when the disease has passed into a condition where 'respiration' is fully arrested, unless the life is saved by *Laryngotomy* or *Tracheotomy* which are operations so dangerous, that they should be resorted to only in the last extremity. The disease, we must

remember, in its worst form, and even under unfavourable treatment, generally extends or runs a course of five or six days, and if the medical attendant understands his work, it can be subdued with comparative ease at any time between this, unless the system is fairly exhausted. In no case, however, where deglutition will admit of it, should an *Emetic* be neglected, and we know of no remedy equal to *Lobelia*. Its influence over *Spasm*, *Constriction*, *and Congestion*, far exceeds any single agent with which we are acquainted. Prescribe as follows:—

℞ Eupatorium Perfoliatum (Bone-set herb) ..... One ounce.
Lobelia (herb, in powder) .... One drachm.
Capsicum (Cayenne, in powder) .... Ten grains.

Put the whole into a quart jug, pour on a full pint of boiling water, cover, and let it stand twenty minutes, after which, strain off the liquid, sweeten with treacle, and drink in wineglassful doses every ten minutes until the whole is taken.

The purpose of combining *Lobelia* with the *Eupatorium Perfoliatum* and *Cayenne*, is, that it may act not only in relaxing the constricted cartilages of the *Larynx*, but directly upon the whole system. *Diaphoresis* and *Emesis* are gradually induced by the two former, whilst the latter, acting at once upon the capillaries, affords immediate relief. Should the medical attendant not be called until the disease has run its course, and the patient is all but lost, he must lose no time in deciding upon the treatment, and use such means only as the remaining vitality will admit. Emetics are not admissible when the body is too far reduced to react, or where the reaction would overtax the remaining strength. The same rule applies to baths and active treatment of every kind. In cases such as these, the friends of the patient should be made acquainted with whatever hope or danger may present, and the treatment be such as befits the case. "Is it possible to relieve the breathing?" is now the question, for life often hangs upon this one chance. Prescribe the following:—

℞ Mellissa Officinalis (Common Balm herb, dry)..... Half ounce.
Antispasmodic powder ..... One drachm.

Infuse in a full half-pint of boiling water, cover, let it stand for ten minutes, strain, and sweeten with honey.

We presume that the case is all but beyond help, but remember the old adage, "while there's life there's hope," and do our best. The nurse or attendant will see that the patient is placed in a position the

most favourable, sit by the side of the bed, and give as much of the medicine as possible, and as frequently as it can be taken. If a few drops only can be passed at first, relief may be obtained, after which, they may be increased to teaspoonful doses or more. Should this treatment prove successful, even in the slightest degree, we must persevere with the same medicine for three or four hours, giving at intervals a little of the "Digestive Food" (see "Index"). And now, presuming that favourable symptoms supervene, we may venture to prescribe—

℞ Antispasmodic Tincture..... Two drachms.

From four, six, eight, or ten drops of which, as the patient can bear, may be given in full doses of the last infusion.

The *Cataplasm* or poultice of *Ulmus Fulva* and Mustard should not be overlooked at any stage of the disease, for which see *Pleurisy*, page 295; see also "Index" for "Convalescent Medicines" and "Convalescent Drinks,"*

LARYNGITIS *(Inflammation of the Larynx).*

Description.—*Chronic.*—This form of the disease owes its existence more to the improper treatment of other diseases, particularly those of the throat, in its "acute" form, than to any other cause. We state this as the result of the experience of a quarter of a century and more; and our statements are not only borne out by others, who understand medicine and practice it as a "Science," but by the teaching and writings of nearly all orthodox professors. Take the following as a case in point:—"Inflammatory action can be reduced, and effusion prevented, only by the most prompt and active measures—by the application of from two to six *Leeches* over the part, followed by *Tartarized Antimony* in combination with *Calomel* and *Opium*, in full doses. A grain of *Calomel*, with from an eighth to a sixth of a grain of *Tartarized Antimony*, and a third or half grain of *Opium*, every one, two, or three hours, according to the urgency of the symptoms." The object of this treatment is to reduce inflammation by *Tartar Emetic;* supersede inflammatory action by *Mercury;* and soothe the existing irritation by *Opium*. "Ice should be held in the mouth, and

* As a preventive, those who are predisposed to *Laryngitis* should gargle the throat every morning with cold spring water.

applied around the throat." This is the treatment prescribed, in order to reduce *Inflammatory action* and prevent *effusion*. But when '*effusion*' has taken place, the following is prescribed in order to absorb it. "*Mercury*, internally, combined with *Tartar Emetic* and *Opium*, as just recommended. Bleeding is of little use. *Mercury* may also be rubbed in at the same time; and *counter-irritation* may also be employed with advantage, in the form of "Blisters" to the side of the neck, at the same time."*

Causes.—This treatment, which is more or less common, we unhesitatingly assert to be one of the most prolific causes of *Chronic Laryngitis*. That there are others we readily admit, such as *Secondary Syphilis*, excessive drinking, continuous speaking, smoking, singing, &c., &c. Here is a "Surgeon" of great repute, who has a fancy for cutting the *Uvula* out whenever it happens to be inflamed; and here is another with great faith in Nitrate of Silver, who is constantly mopping out the throats of his patients. We recollect a poor fellow coming to us in Leeds who had been operated upon for an *Inflamed Elongated Uvula*, telling us the "Doctor" "had gotton a bottle full o' *Clacks* (Uvulas) in pickle." This was the only way that he could be convinced of its necessity; "an' I ha' ne'er been reight sin'," said he, as he related the story of his lost 'Uvula.'

We have but to consider the delicacy of the mucus membrane which covers the *Epiglottis*, *Larynx*, and every part of the throat, and the beautiful net work of nerves and blood-vessels that supply and nourish them, to know that only in proportion as they are sustained can their vitality be secured. Let us consider for a moment what the effect of the practice named must be. If the *Aorta*, or any of the main arteries are seriously injured, death follows as the result; and if the terminal branches which supply the throat or any other part are injured, the result is in proportion to the injury done. Harvey's great discovery is all but valueless, if it has not taught us this. It will be necessary to remind the student that the *Chordæ-vocales* (vocal chords), *Cartilage*, *Membranes*, *Capillaries*, and terminal branches of the *nerves* and blood vessels are more or less injured or destroyed, and we should be false to medical *science*, and deserve to be branded as a "Charlatan," if we kept back the truth.

* Guy and Harley. From Hooper's "Vade Mecum," London, 1864.

Diagnosis.—In so far as the "Diagnosis" is concerned, we have only to add, that the *Cough* is more or less constant, the *Voice* lost at times altogether, or reduced to a low whisper, the *Expectoration tough, hard,* or *knotty,* at other times mixed with streaks of *bloody mucous,* and accompanied more or less with offensive breath. If the patient is not worn out with age, or the body exhausted, he may be greatly relieved, in some cases cured, but, generally speaking, such cases are tedious, unsatisfactory, and often altogether hopeless.

Treatment.—*Hygiene.*—Consider the general condition of your patient, how situated, what the causes are; and if anything interferes with the necessary treatment, remove it if possible, or if not, state the consequences fairly. In the present case, the parts are permanently injured, and the questions are, what can *Nature* do to repair them, and what can we do to assist 'Nature?'

Chronic disease, like *Acute,* is determined by the condition of the blood, and the reparative process cannot be maintained unless the different organs and parts which compose the body act in harmony. Examine the condition of the *Stomach, Liver, Kidneys,* and *Intestinal Canal,* and see that each and all are attended to.

Treatment.—*Medicine.*—In every case of *Chronic Laryngitis* that we have met with, the whole system, more or less, has been disordered. In some very rare cases, where the patients were young, and possessed of sound constitutions, the effects were not so marked, but, more or less, the progress of the disease was visible. The indications of cure cannot be other than self-evident to the scientific physician. He estimates the condition of the throat and the system generally, and relies mainly on the latter for the relief or cure of the former. If the stomach is disordered, and the strength will admit, an emetic may be given once a week with advantage, or occasionally, as necessary, followed with—

℞ Compound Powder of Stillingin (See "Index") ..... One grain.

Or, if the stomach has been injured by mineral acids, mercury, &c., &c., and is in an irritable condition, prescribe—

Compound Cayenne Pill..... Five grains.

One after dinner, or one after each meal, as the patient can bear. (See "Index.")

The following may also be prescribed in the same way, wherever *Gastrodynia* (spasmodic flatulent painful condition of the stomach) exists :—

℞ Compound Lobelia Pill ..... Five grains.

To relieve the inflammatory condition of the throat, prescribe the following :—

℞ Tincture of Sanguinaria (Blood root) ..... One ounce.
Pure Spring Water ..... Seven ounces.

Use as a *gargle*, morning, noon, and night, increasing the strength as the parts can bear it; or if a small sponge be fastened to the end of a piece of whalebone or small stick, and passed, slightly saturated with the *Tincture*, over the inflamed parts, it will be very beneficial. To shield the throat, and supply an artificial mucous secretion, a piece of *Gum Arabic* may be gradually dissolved in the mouth with one of the "Patent Pulmonary Lozenges." This is exceedingly simple, more efficient than any other, and cannot be used too freely.

It is but little that we can add to what has been already advanced; we may say, however, in conclusion, that the cure of the disease, whether in its *Acute* or *Chronic* form, depends entirely upon the blood; and that it is folly and delusion to presume to treat it successfully, where this important knowledge is wanting.*

For Tonics, Alteratives, Convalescent Drinks, Diet Drinks, Astringent Gargles, Liniments, &c., &c., see "Index" and "Appendix."

TONSILLITIS *(Quinsy).*

Description.—This form of inflammatory disease is confined to the *Tonsils*, or it may exist as a complication of *Laryngitis*. As *Quinsy* it is well known to many from the fact of their being

*"If the disease have a Syphilitic origin, *Mercury* should be given in small doses, so as to affect the mouth; or the *Iodide of Potassium*, in five grain doses, three or four times a day. * * *Nitrate of Silver*, *Corrosive Sublimate*, and *Sulphate of Copper*, have been recommended (to restore the tone of the relaxed mucous membrane). The preference should be given to a strong solution of *Nitrate of Silver*, applied by means of a small probang, to the *Epiglottis* and upper part of the *Larynx*. If solid substances be preferred, they should be used in the form of impalpable power, and drawn into the larynx through a tube. Nitrate of *Bismuth Calomel*, with twelve times its weight of sugar; *Red Precipitate*, *Sulphate of Zinc*, or *Sulphate of Copper*, mixed with thirty times their weight in sugar; *Alum* with twice its weight, and *Acetate of Lead*, with seven times its weight, are remedies suitable for the purpose."

Page 504, Guy and Harley. Hooper's "Vade Mecum." London, 1864.

predisposed to it. In its milder form it is known as ordinary "sore throat," in its severer form as *Quinsy*, and in its malignant form as "putrid sore throat" *(Cynanche maligna)*.

Causes.—See *Laryngitis*, page 303. Like *Trachitis* it is more common to youth or boyhood and girlhood than to any other period of life, although it not unfrequently attacks others at later "periods." It is either "acute" or "chronic," according to the nature of the circumstances, *time* and *treatment*.

Diagnosis.—Alternate fits of heat and cold, difficulty of deglutition, dryness of the throat, pains in the limbs, hard pulse, thick impeded articulation, enlarged and inflamed 'tonsils,' coated tongue, pains in the neck and ears, with free secretion of slimy saliva. As the disease advances, the pains, enlargement of the 'tonsils,' difficulty of deglutition, and fever increase, followed by a cold exudation from the skin, weak intermittent pulse, fetid breath, gangrene, and death, which takes place generally from five to six or seven days.

Treatment.—*Hygiene.*—See *Laryngitis*, page 304.

Treatment.—*Medicine.*—In this, as in all inflamed conditions of the throat, active treatment is absolutely necessary. There is no mistaking, in fact, the indications of cure, and the work to be done. It must terminate either in *resolution*, *suppuration*, *ulceration*, or *gangrene*, and there is no time to lose if we are to prevent it from running into the latter stages. Prescribe the "Medicated Bath" for the feet and legs, as in *Trachitis*, and apply the "hot saturated flannels" to the throat as recommended in the same disease. As an aperient prescribe—

℞ Podophyllin..... Half grain.
Sanguinaria..... One grain.
Capsicum (powdered Cayenne)..... Three grains.
Powdered Sugar (white)..... Thirty grains.

Mix in about a wineglassful of warm water, and give immediately, after which prescribe—

℞ Eupatorium Perfoliatum (Boneset herb)..... Half ounce.
Sanguinaria (Blood Root, in powder)..... Twenty grains.
Capsicum (Cayenne, in powder)..... Twenty grains.
Lobelia (herb, in powder)..... Ten grains.

Infuse the whole in a full half pint of boiling water, cover and let it stand twenty minutes, after which strain, express, sweeten with molasses (treacle) and give in teaspoonful doses every five minutes until the whole is taken.

The purpose of this medicine in connection with the last will be readily understood.

It is "absolutely necessary," we have said, to resort to "active treatment," if we would prevent *ulceration* or *gangrene*, that is to say, sloughing or death of the parts. Our aim is to cure the disease by "resolution;" and in order to do this, we keep a slow but constant stimulation up directly upon the inflamed 'tonsils,' and whilst this is being done by *Sanguinaria* and *Capsicum*, the *Eupatorium* and *Lobelia* are acting as a *relaxant*, *emetic*, and *diaphoretic*. Should it be necessary to increase the strength or quantity of the medicine, in order to produce the results named, it may be done with perfect safety, and should the inflammatory condition of the "tonsils" pass into suppuration, which in spite of every exertion it may do under certain circumstances, it will be necessary to open them on one or both sides, in order to evacuate the *pus* and relieve the parts of pressure. There is nothing difficult or dangerous in the operation; simply press the tongue down with a *spatula*, and pass a sharp pointed clean lance through the head or prominent part. It is rarely necessary, however, but should not be neglected when relief cannot be obtained without it.

The common or old school practice in the "acute" form of the disease is to scarify or lance the "tonsils," and apply leeches; and in the "chronic," to prescribe tincture of iodine, sulphate of copper, nitrate of silver, &c.

For Formulas, Gargles, Emetics, Tonics, Expectorants, Convalescent Food, Medicines, and Diet Drinks, see "Index" and "Appendix;" and for treatment of *Chronic Tonsillitis*, see *Chronic Laryngitis*, pages 309 and 310. To strengthen the parts and prevent further attack, gargle the throat every morning freely with cold spring water.

TRACHITIS *(Inflammation of the Trachea).*

Description.—It is little that need be said concerning this form of inflammatory disease, and that simply because it differs from *Laryngitis*

only in being seated in the *Trachea*. In the former the disease lies above the *Pomum Adami*, in the latter it lies below. It is more common to childhood, or boyhood and girlhood,—in many cases it bears a close resemblance to *Croup*, and is divided into "acute" and "chronic."

Causes.—Atmospheric changes, wet feet, cold, damp, unhealthy situations, sleeping in ill-ventilated apartments, sudden exposure of the body, particularly of the neck, low state of vitality, insufficient clothing, &c.

Diagnosis.—We have but to know where the disease is seated to fully understand it. It is ushered in with alternate fits of *cold* and *heat*, similar to all other inflammatory attacks. The respiration and cough are the same as in *Laryngitis*, accompanied with wheezing, difficulty of articulation, &c., &c.

Treatment.—*Hygiene.*—See *Laryngitis*, page 304.

Treatment.—*Medicine.*—There is no time to lose in any form of inflammatory disease, but more particularly when seated in the throat; and the progress which it makes is the best evidence we can have of this, for if it is not arrested by efficient medication, it may prove fatal in the course of three or four days, or in some cases even earlier. The indications of cure are the same as in those of *Laryngitis*. Subdue the inflammation, and sustain the patient's strength; nature will do the remainder. Prescribe a "Medicated Foot Bath," as follows:—

℞ Teucreum Scorodonia (Wood Sage, herb, dry)..... .. Two ounces.

Infuse in three quarts of boiling water, and when sufficiently cool, bathe the feet and legs for about five minutes; after which apply hot flannels saturated with the same and wrung out to the throat.

Give a *Lobelia Emetic*, as in *Laryngitis*, relieve the bowels, raise the perspiration, keep it up for some hours, and you strike at once at the root of the disease. There is no time for trifling, cessation of treatment, nor halting between a diversity of opinions. If it is to be cured in its most severe attacks, it must be by active means. Once allow it to get the mastery, and your best efforts may be of no avail. Reduce the inflammation, promote expectoration, avoid everything

likely to encourage a relapse, and sustain the patient's strength by every possible means. As an ordinary daily medicine prescribe—

℞ Teucreum Scorodonia (Wood Sage, dry herb)..... Half ounce.
Sanguinaria (Blood Root, in powder) ..... Twenty grains.
Lobelia Tincture (Acid) ..... One drachm.

Infuse the two former in a full half pint of boiling water, let it stand covered twenty minutes, after which sweeten with coarse brown sugar or molasses and add the latter. Give from a teaspoonful or more every hour throughout the day, and if the symptoms should return towards evening, prescribe the "Emetic," and raise the perspiration again.

There is no danger so long as the strength is not materially reduced; it is not in doing it that the danger lies, but in not doing it.

Read *Laryngitis*, see the use of "Medicated Local Steam Bath," and apply if necessary. See also "Digestive Food," and follow out the *general* as well as *local* treatment. After the severer symptoms are fairly removed, there is nothing to do but wait upon nature, and assist her to complete the work. To promote expectoration, the "Pulmonary Lozenges" may be used with very great advantage.

In its "chronic" form it is tedious and difficult to cure, but from the fact of the disease being common to youth, it has many advantages over *Laryngitis*. Like it, however, it owes its existence more to maltreatment of "acute" attacks than to any other cause. For treatment, see *Laryngitis* (chronic), pages 309 and 310.

PAROTITIS *(Mumps)*.

Description.—This form of inflammation is more common to childhood than adult age, and is well known to mothers generally. It is seated in the "parotid glands," which lie between the ramus of the jaw and ear, and is often a concomitant of fever, in which case it generally runs into suppuration; but where it is simply an effect of cold, or other slight cause, it readily yields to medication, and passes off by resolution.

Causes.—Some children are very much predisposed to it, and there can be little doubt but that it is connected with a low state of vitality, bad nursing, drugging, and the maltreatment of diseases to which they are constantly liable. In addition to these, cold, bad

ventilation, deficient or impaired nutrition, poverty, uncleanness, and a strumous habit of body have much to do with it. "Swelling of the ear bosoms" is the common synonym by which it is known in towns and villages, particularly in the West of England.

DIAGNOSIS.—Soreness, pain, and swelling, sometimes on one side of the ear only, and at other times on both. In severe cases the 'swelling' and 'pain' extend to the glands of the neck and lower jaw, which become hard and exceedingly painful.

TREATMENT.—*Hygiene.*—See *Bronchitis* (page 290), or any of the diseases already treated.

TREATMENT.—*Medicine.*—Hot fomentations of chamomile, feverfew, wormwood, or yarrow, after which the "Stimulating Liniment" (see "Index"). Wrap the throat in warm flannel, and prescribe—

℞ Tincture of Stillingin ..... One drachm.
Tincture of Podophyllin ..... Half drachm.
Tincture of Leptandrin ..... Half drachm.

From five to ten drops three times a day, in a little simple syrup.

The medicine should be increased or decreased according to age. Keep the bowels comfortably free for a few days, attend to local applications as directed, and there will be nothing more needed. Where *Parotitis* follows as the *sequelæ* of fever, however, or from *Scrofula*, *Syphilis*, or other causes, as it often does, in *youth* and *adults*, the treatment must be in accordance with the age of the patient and condition of the disease. The following is related by Dr. HARLEY, and we quote it because it serves to illustrate its character, and the manner in which it may, under certain circumstances, be communicated and developed:—"A medical student had mumps in London, at a time when his mother was staying with him. They remained in town until the swelling disappeared, and then went home one hundred miles into the country. There was no mumps in the neighbourhood, but a fortnight after their arrival, one of the children was taken with the disease, and it afterwards successively affected, at regular intervals of a fortnight, each member of the family."

We may simply add that *parotitis*, or mumps, being a disease of the glands, sometimes changes its locality and passes by *metastasis* to

the mammary glands and testicles. In such cases the treatment in no way differs from that already described. Hot fomentation, poultices, aperients, alteratives, and in severe cases, the "Compound Lobelia Emetic" (see "Index"). See "Index" also for "Scrofula."

DIPHTHERITIS (*Diphtheria*).

Description.—What is *Diphtheria?* The question is doubtless easier asked than answered. It is defined by the Royal College of Physicians, London, as "a specific disease, with membranous exudation on a mucous surface, (generally of the mouth, fauces, and air-passages, or occasionally on a wound)." Drs. Guy and Harley define it as "a contagious and infectious disease, manifested by 'inflammation' of the *commencement* of the *Alimentary Canal* and *Respiratory Passages*, and accompanied by fibrinous exudation." Dr. Beach, of America, who published a most elaborate work on medicine, in three volumes, some few years ago, does not even name it, nor was it known as *Diphtheria* to any of our early medical writers. Dr. Buchanan, of America, in his work of 1868, says, "The characteristic feature of this disease consists in the exudation of an *albuminous* effusion on the mucous surfaces of the *fauces* and *air passages*. It is an epidemic and contagious sore throat and 'strawberry tongue.' Scarlet fever, however, predisposes to *Diphtheria* as a subsequent attack. Membranous *Croup* is a *sporadic* and *sthenic* local *Phlegmasia* whose symptoms are dependent upon the local affection; whereas *Diphtheria* is a constitutional disease, generally epidemic, in which the local symptoms are secondary. The commencement of the pseudo-membranous deposit in *Diphtheria* is about the *tonsils* and *pharynx*, whereas in *Croup*, it is the *trachea* or *larynx*. *Diphtheria* seldom extends, in any case, below the *larynx;* but *Croup*, not unfrequently, extends to the *bronchial* tubes. But when the *laryngeal* complication has occurred in *Diphtheria*, the *Croup*-like symptoms are nearly the same as those of any other *laryngeal* obstruction, and similar to those of *Croup*.

"*Diphtheria* is distinguished from *Thrush* and *Aphtæ* by the deposit being much larger and thicker, never *vesicular*, and usually duller in colour, as well as accompanied by more severe constitutional symptoms. *Thrush* begins in the mouth, * * and is not, like *Diphtheria*,

epidemic. Simple *Diphtheria* is not very fatal, but the *croupal* form is, as is also the malignant, in the majority of cases."

That disease changes its character, as nations and peoples change their habits and institutions, there can scarcely be two opinions, and what we now know as *Diphtheria* was the old *Cynanche maligna* or malignant sore throat, intensified at the present time by the increase of human error, regarding the necessary hygienic and sanitary improvements demanded by the rapid increase of population. Beyond this we know nothing, and believe no one else does. It is doubtless infectious; in its malignant form intractable, difficult, and in some cases (as in all malignant diseases) entirely beyond the curative power of medicine. Apart, however, from the name *Diphtheria*, with which it has been dignified within the last few years, we should have classed it with one or other of the throat diseases already treated, and have been content to accept its variations as "complications," in the same manner as we do all others. But we have asked, "what is *Diphtheria?*" Our reply is, MALIGNANT SORE THROAT, not always confined to the *larynx*, as in *Laryngitis;* nor to the *trachea*, as in *Trachitis;* nor to the *tonsils*, as in *Tonsillitis;* nor to the *œsophagus*, as in *Œsophagitis;* nor the *parotid* glands, as in *Parotitis;* nor to the *bronchial* tubes, as in *Bronchitis;* but in its worst forms in combination and complication with the whole; or in its mildest, with a part of the whole. To understand it in this light is to remove much of the mystery that surrounds it, and make it amenable to reason.

CAUSES.—See *Laryngitis, Trachitis, Tonsillitis*, &c., and add what you think proper. Dr. JENNER believes "Family [hereditary] causes favour its development, and that the infectious element does not require any of the ordinarily considered anti-hygienic conditions;" and Drs. GUY and HARLEY (all great authorities) tell us it is excited or caused immediately by "a POISON, *probably specific, either generated within the body or external to it.* It spreads by contagion and infection, and affects persons of young and adult age, but chiefly children. *Old people are remarkably free from it.* It occurs in epidemics, separated by long intervals."

DIAGNOSIS.—Like inflammation and disturbance of every kind, it has its latent or incubative stage, which, if attended to would do much to mitigate its development, and remove the fatality that so

frequently follows its neglect. It commences with alternate fits of *heat* and *cold*, slight difficulty of deglutition, stiffness of the neck, swelling and inflammation of the *fauces* and *tonsils*, which, if not arrested by active medication, rapidly increase and pass into the condition so characteristic of the disease. It varies in intensity and duration, in some cases terminating in death as early as the third or fourth day; in others later, and in others continuing up to fourteen or twenty-one days. The exudation, which is composed of a fibrinous substance, may commence at any part of the mouth, and extend not only to the *larynx, tonsils, and fauces*, but to the *pharynx, œsophagus*, and stomach, or even to the *trachea* and *bronchial* tubes. It is detached with difficulty, and when removed leaves a raw beef-like surface behind it, which is soon again covered. The condition of the *larynx* and vocal chords may be known by the rough husky sound of the voice, which, as the disease advances, can be heard only in a whisper, or not at all. It is hardly necessary to say that the breath is fœtid and offensive, and that the patient has but little chance when thus reduced, and that the respiratory organs being equally implicated, suffocation and death follow as a consequence.

Treatment.—*Hygiene.*—Of the importance of cleanliness, pure air, and good nursing, in every disease, too much in praise cannot be said. In *Diphtheria*, however, they are particularly indicated, and whether we rightly understand its pathology or not, or however much we may differ, there cannot be two opinions regarding its value. In this, as in all inflammation, active medication and hygiene can alone be depended upon. We have seen with what rapidity the disease advances, and can easily understand how necessary it must be to attack it at once. It is, we must remember, "epidemic" and "contagious," and owes its origin to *a specific poison* of some kind, but of which we know nothing, nor do we know in what way it is engendered, the length of time it remains latent in the system, or how it is afterwards developed. Our ignorance in no way interferes with the treatment, however, nor with the principles upon which scientific medicine is based, nor with the general knowledge upon which the cure of this and all other disease depends.

How little we know of the character of "Epidemics," and of the nature of poisons, every man of experience readily admits. The *Woorah*, with which the native Indian tips the point of his arrow, if it

penetrates the skin, permeates the blood so rapidly that it destroys life at once; and the Equine poison (of the Horse), though not so rapid, is equally certain to induce *Farcy;* whilst the Canine (Dog "poison") may remain latent in the system for months. All, however, are equally destructive, and amenable but to one general method of treatment.

The safety of the man who has taken "poison" depends upon time, and the means at our command to force the stomach to discharge its contents; or failing in this, upon the strength of the system to sustain itself until it is discharged by the natural channels, or neutralised by other agents.

In dealing with *Diphtheria*, or any specific disease of the blood, the same principle holds good. It is presumed, for instance, that *Malignant Scarlatina* and *Diphtheria* resemble each other so closely in many of their phases, that it is difficult to distinguish them, and some have gone so far as to say there is no distinction whatever between the two. Now, however much we may doubt or disagree concerning this, there can be no 'disagreement' regarding the treatment. The *Poison* must be removed or neutralised, and that too before the system is prostrated or reduced as to afford no reasonable hope of the patient's safety. Are we called during its incipient stage? If so, and we treat it agreeably with first principles, there need be no fear of the result, because the disease having been arrested in its progress, the advantages gained are commensurate with the effects produced.

To the best of our knowledge, we have never met with a case where *Fibrinous exudation* followed upon the proper treatment of 'premonitory' symptoms. We distinguish *Diphtheria* by this, or in other words, by the sloughing of the "mucous membrane" of the *Fauces*, *Larynx*, *Tonsils*, and more or less of every part connected with deglutition and respiration, and not by its "premonitory symptoms," that is to say, "stiffness of the neck, soreness of the throat, difficulty of respiration, deglutition, &c., &c.," which are common to all throat disease; and without presuming to dogmatise, we say, nevertheless, that the disease may be arrested in its incipient stage, and that under these circumstances *Diphtheria* will not, cannot be developed. To those who know nothing of the power of simple medicines, these conclusions may appear extravagant: there are thousands, however, who do "know," and whose experience is the best guarantee we can give in favour of the truth of our statements.

Now, let it not be presumed that it is curable at all times, when

fully developed, or when the system is exhausted. There are, it is true, extreme cases of blood poisoning where patients rally and finally recover under circumstances most extraordinary, where there appears, in fact, not even the shadow of a chance. It is so in *Diphtheria*, but this is what we cannot reasonably anticipate; we are bound, however, to do our best under every circumstance, and to leave nothing undone that can possibly be accomplished by human means.

TREATMENT.—*Medicine.*—Prescribe the "Medicated Bath," (see "Index," or let the patient stand upright in a large pan, and whilst the feet and legs are being washed, the body should be bathed all over with a sponge or flannel, or, if convenient, immersed for about five minutes, after which, let the skin be rubbed dry, and the patient put into a warm bed. This done, apply the "Compound Ulmus Poultice" to the throat, as hot as it can be borne, and prescribe—

℞ Eupatorium Perfoliatum (Boneset herb, in powder) Half ounce.
Lobelia (herb, in powder)..... One drachm.
Capsicum, (Cayenne)..... Ten grains.

Infuse in a pint of boiling water, cover, and let it stand twenty minutes, strain, sweeten with treacle, add a tablespoonful of brewer's yeast, and give in wineglassful doses every ten minutes until the whole is taken.

This simple remedy is most efficient in all cases of throat disease. It acts as a *stimulant*, *diaphoretic*, *diuretic*, *antiseptic*, *expectorant*, and *emetic*, neutralises the poison—takes effect upon every part of the system—carries the blood through the congested capillaries, and prevents *exudation*, which is the peculiar characteristic of the disease. As an aperient prescribe—

℞ Compound Powder of Leptandrin ..... Two grains.

Daily, or every second day, as necessary.

As a diet, prescribe beef tea in change with the "Digestive Food," chicken broth, and such light nourishment as the patient can take.

It will be necessary to keep up a gentle stimulating action upon the *Fauces*, *Larynx*, and every part of the mouth, for which purpose, the "Pulmonary Lozenges" may be used freely, or in their absence—

℞ Antispasmodic Tincture .. .. From five to eight or ten drops,

Give in a little Balm, Hyssop, or Ground Ivy tea, sweetened, every half-hour throughout the day.

Should the disease have passed into the second stage, or commencement of the *exudation*, the same treatment should be employed. The medical attendant will best judge of the prudence of this, however. In all cases where there is sufficient stamina, it may be resorted to with perfect safety and success; but in all others the medicine must be regulated according to the circumstances of the case. The "Local Medicated Vapour or Steam Bath" may be used wherever there is difficulty of breathing, with every advantage: and whenever the disease has run its course before the attendant is called as is too often the case in poor families, the more gentle treatment should be resorted to.*

For "Local Medicated Vapour Bath," Convalescent Medicines, Food, Drinks, &c., see "Index."

ŒSOPHAGITIS (*Inflammation of the Œsophagus or Gullet*).

Description.—It is but little that need be said concerning this disease; it must not be passed in silence, however, seeing that the *Œsophagus* is so closely related to the stomach, that anything which affects or injures it, more or less immediately interferes with life. If it is simply what the name expresses, "Inflammation of the Gullet, or *Œsophagus*," there need be no fear regarding the cure. It is often so complicated with other diseases, however, that it is difficult at times to distinguish it. The "Œsophagus," like the stomach, is liable to cancer; or it may be ulcerated, or affected with stricture; the 'inflammation' in such cases is merely premonitory, and must be con-

* In the year 1863 "Diphtheria" raged with great severity, and we copied about the same time the following from the *Western Daily Mercury*:—

"Sad Bereavement.—Within the last four weeks, Mr. Parsons, of Higher Hareston, Brixton, has lost no less than eight children by Diphtheria." "Hareston" is a small hamlet belonging to the parish of Brixton, a village in the South of Devonshire, lying about half-way between Plymouth and Modbury. Instead of "eight" children, however, as recorded in the local paper, it was *nine*. We attended the village church one Sabbath, whilst on a visit to the neighbourhood, and read the sad memorial to their memories, as placed there by their disconsolate parents. Within six weeks *nine* out of a family of eleven, all fine healthy children, were deposited in one vault. The youngest but three years, the oldest seventeen.

"Fie! 'tis a fault to heaven—a fault against the dead—a fault to nature; to reason most absurd. * * * * From the first corpse to this that died to-day."—*Shakespeare*.

sidered as a concomitant rather than as a distinct disease. We were called to a case not long since that had been treated for several weeks as *Œsophagitis*, which it really was; it was accompanied, however, with *Scirrhus* or cancer; and although there appeared but little waste of body, we felt satisfied that our "diagnosis" was correct; and when we were asked to give an opinion privately, which we did, and pronounced it beyond the reach of cure, it was received with very great doubt. It proved correct, however. Another case we well remember, where the disease was accompanied with "stricture" of the "Œsophagus," and where we stood alone in our opinion. We were right in our diagnosis, nevertheless; and merely name these cases to show the necessity of understanding the different forms of disease that may accompany or follow it.

Causes.—Constant use of hot liquids, corrosive poisons, mercurial salivation, swallowing or bolting accidentally hot solid unmasticated food; preparations of iron, copper, or acrid substances of any kind.

Diagnosis.—Constriction and difficulty of swallowing, pain accompanied with retching and vomiting, spasmodic attacks, and expulsion (where the disease is the result of scalding, or of corrosive or acrid poisons) of effete portions of the mucous membrane.

Treatment.—*Hygiene.*—Attend carefully to diet, for more depends upon this than upon medicine. Use the "Digestive Food" freely, beef tea, chicken broth, and such nutritious fluids as can be taken. Should the patient be incapable of swallowing, it will be necessary to support the strength by *enemata*. Injections of "Digestive Food," beef tea, chicken broth, &c., must be administered in quantities sufficient daily.

Treatment.—*Medicine.*—Note well the general condition of the system, and attend to "medication" by *enemata*. Sustain the strength, and remove the inflammation by the most simple means,—this is the primary consideration. We are presuming that the patient is incapable of swallowing liquids of any kind, and prescribe accordingly. If deglutition is not completely arrested, however, we shall be in a condition to treat it with a greater chance of success, and much more

speedily, although this will be determined by the nature of the case. In simple *Acute Inflammation*, nutritious liquids, as directed, may be given, either by the mouth or as "enemata," as most convenient. If the bowels are inactive, prescribe

℞ Tincture of Rhubarb ..... One drachm.

In any convenient vehicle.

And if the skin is dry and feverish, prescribe the "Medicated Vapour Bath" (see "Index"). The disease, if uncomplicated, readily yields to this treatment, and where it does not we may make sure that it is complicated with deeper-seated mischief.

In all cases where the patient is capable of swallowing, prescribe

℞ Anti-spasmodic Tincture,

From five to six drops every hour, in a teaspoonful of "Digestive Food."

We must distinguish between *Acute Œsophagitis*, arising from simple causes, and that form of the disease which is caused by hot liquids, or acrid and corrosive poisons. The former may be removed by resolution, but the latter can only be treated by palliatives, whilst time and nature repair the parts.

Should *Stricture* supervene, as it sometimes does, it will be necessary to pass a properly prepared *bougie* or *probang*, as the case may require; or if ulceration, perforation, or scirrhus should follow, the treatment must accord with the requirements of the case.

It is rarely that any of the *sequelæ* named follow where the patient is young. In those advanced in years, however, it is by no means uncommon to meet with one or other of them, particularly where the sufferers have led irregular lives, or been improperly treated for other diseases.

GASTRITIS (*Inflammation of the Stomach*).

Description.—From the proximity of the stomach to the *œsophagus*, and its close relation to life, we may easily conceive its liability to "inflammation," or we might with truth say, that, whether "inflammation" was seated in the *pharynx*, *œsophagus*, *stomach*, *duodenum*, *jejunum*, or any part of the intestinal canal, that it was but one and the same disease. As a means of distinguishing locality,

our nomenclature is correct enough. It is altogether deficient, however, in its application to nosology, nor is it possible to understand and treat disease successfully without a much higher conception of its true character than that which at present obtains. To know *Gastritis* simply as "inflammation of the stomach," without at the same time taking into consideration its relation to every part of the system, is to evince a lamentable deficiency, which can be excused only upon the consideration of its universality. The disease is divided into "acute" and "chronic," but, for our present purpose, we shall confine our "description" and treatment to the former.

CAUSES.—Sudden chill, and arrest of circulation in the capillary vessels, from drinking too freely of cold water whilst *fatigued* and in a high state of perspiration; constant use of hot liquors of any kind, particularly alcohol, corrosive and irritant poisons, hard indigestible substances swallowed during intoxication, blows, accidents, &c.

DIAGNOSIS.—Sickness and vomiting, severe pain in the epigastric region, extreme thirst, hiccough, restlessness, hard quick pulse, red tongue, more or less inflamed, prostration, and constipation of the bowels. It is not so common as many other forms of inflammation, and is generally more or less complicated with intestinal and other disease.

TREATMENT.—*Hygiene.*—See "Index."

TREATMENT.—*Medicine.*—What are the causes, what the general condition of the patient, how best to remove the pain and carry the blood through the obstructed vessels, must be the primary consideration. We know that if acute inflammation does not terminate in resolution, it cannot do other than put on a *chronic* condition, or failing in this, to pass into a state of *ulceration*, *perforation*, *scirrhus*, or *gangrene*. It will be readily seen from this, that whilst we are treating the actual disease, we are at the same time considering ultimate causes, and that to overlook them is to err in *prognosis*, and do our work in the dark. The following case came under our notice some few years ago: A gentleman was thrown from his gig; no bones were broken, nor any great injury done, apparently. Very soon

after, however, he was attacked with severe pain in the pit of the stomach, followed with vomiting and *Hæmatemesis*, and all the evidences of *Acute Gastritis*, over which he rallied and appeared to do well. Occasionally, however, he felt slight pains, but took little notice of them. These went on, slowly and gradually, until they became serious; we saw him several times at intervals, after the accident, and could form a pretty correct idea of what was actually going on; finding the symptoms increase, we felt satisfied there was something more than common, and upon examining the part carefully, we detected a slight protuberance, which we felt assured was no other than *Scirrhus*. He lingered on for some two or three years, but finally died of this disease.

Our purpose in naming it is merely to show what circumstances may determine the present as well as the future of such cases; and that, whether they are *Idiopathic* (from some indirect cause) or *Traumatic* (from accident or some direct cause), it is necessary to understand them in all their numerous phases, if we hope to succeed in our treatment. Should there be any doubt regarding this, the student will do well to turn to and read carefully from page 270 to 280, or pages 273 and 274.

"ACUTE DISEASE is the first or primary manifestation of 'disturbance;' the successful termination or re-adjustment of which depends upon the *vital forces of the body, and the means employed to assist its restoration.*"

"CHRONIC DISEASE is a manifestation of deficiency in the 'vital forces,' and of the inefficiency of nature, or the means employed to supply them."

"HEREDITARY DISEASE is the continuation of the original manifestation of 'disturbance;' and the tendency of life to beget its 'like'."

Now, whether the case be *idiopathic* or *traumatic*, in so far as the treatment is concerned, the same end must be kept in view. Apart from the blood there is no life. "Death," Harvey said, "is a corruption which takes place through deficiency of heat, and since all things living are warm, and all dying things cold, there must be a particular seat and fountain, a kind of home and hearth, where the cherisher of nature, the original of the native force, is stored and preserved; whence heat and life are dispensed to all parts as from a fountain head, from whence sustenance may be derived, and upon which concoction, and nutrition, and all vegetative energy depend."

Nothing, so it appears to us, can convey a better idea of the theory of the "circulation of the blood," upon which life ever depends; nor do we think it possible for any man, whatever position he may hold in the profession, to have any right whatever to the title of "physician," who, wanting the understanding, fails to carry it out in practice.*

In the treatment of *Acute Gastritis*, the indications cannot be mistaken, for the pain, thirst, restlessness, and vomiting, speak to us in a language that none but the veriest dotards can fail to comprehend.

Prescribe the "Medicated Foot Bath" (see "Index") for about five or ten minutes, and while it is being given, let the skin be bathed freely all over. This done, relieve the bowels with an *enema*, as follows:—

℞ Ulmus Fulva (Slippery Elm in powder) ..... One drachm.
Coarse brown sugar ..... Two ounces.
Artemisia Vulgaris (Mugwort, dry) ..... Half ounce.

Infuse the latter in a full half pint of boiling water; let it stand, covered, until about blood warm, after which strain and express.

Triturate or mix the two former, and gradually pour on the "infusion," stirring it gently the while.

This simple preparation acts as a nutrient *sedative; relaxant* and *diaphoretic*. It soothes the nerves, sustains the system, relieves the sickness and pain, and assists (to use the words of HARVEY) "to dispense the blood as from a fountain head * * * warm, imbued with spirits, being sent out by the arteries * * * forced on until all the particles recover their heat, which was falling, and their vital stimulus well nigh exhausted."

In addition to this, order a stone bottle of hot water, wrapped in flannel, to the feet, and hot flannels, saturated in the infusion of *artemisia vulgaris* (mugwort), to be laid across the stomach, changing them as they gradually cool.

Now look carefully to the stomach; note the tongue, and determine the treatment internally. If it is coated by the sides, and inflamed or red at the tip, with sickness and vomiting, prescribe—

* We quote the following as the treatment recommended by Drs. Harley and Guy (1864): "Reduce inflammatory action by bleeding from the arm or by the free application of leeches to the pit of the stomach. By iced water, or ice externally and internally." * * * The sickness, restlessness, and pain, are best relieved by carbonic acid water and small doses of diluted hydrocyanic acid (♏ iij. to ♏ v.) combined with tincture of opium.

℞ Lobelia Seed and Herb (equal parts) ..... Half drachm.
Sanguinaria (powdered Blood Root)..... Ten grains.
Eupatorium Perfoliatum (powdered Boneset) ..... Half drachm.

Infuse in a full half pint of boiling water, cover, and let it stand until sufficiently cool, strain, sweeten with treacle, and give in wineglassful doses every ten minutes until the whole is taken and the stomach freely vomited.

The same should also be prescribed if the disease has been caused by irritant or corrosive poisons, particularly if recently taken.

If the tongue is inflamed throughout, the pains severe and accompanied with retching, apply the following :—

℞ "Compound Mustard Poultice" (see "Index").

Mix in hot water, spread between two pieces of soft cotton cloth, place it over the region of the stomach, and keep it on as long as it can be borne.

Emetics, where the tongue and stomach are in the condition here described, should not be given.

In all cases, that is to say, where there is "hiccough" accompanied with 'retching,' and where the tongue presents a uniformly red glazed appearance, the "enema" (see page 330) should be administered every six or eight hours. As an internal medicine prescribe—

℞ Antispasmodic Tincture ..... One drachm.
Mentha Viridis (Spearmint), Oil of ..... Five drops.
Tincture of Sanguinaria ..... Half drachm.

Mix, and give from four to six drops every half hour, in the prepared "Digestive Food," as follows:—*Digestive Food*, one drachm (teaspoonful), in a teacupful of boiling milk and water. Give in tablespoonfuls, with the drops, until the symptoms subside.

As a "diet" during the gradual subsidence of inflammation, there is nothing equal to the "Digestive Food." It is exceedingly demulcent and highly nutritious, and its power over inflamed mucous surfaces surpasses every known remedy. Used as an "enema" it is equally beneficial, and under circumstances where food is not admissible by the stomach, its power (as a nutrient) in sustaining life is truly marvellous. We speak in relation to inflammatory disease, rather than to diseases of low vitality; even in these, however, it is of very great value, and may be used with every advantage.

From a careful review of *Acute Gastritis*, we cannot fail to learn much that is truly valuable, not as regards this disease alone, but of all

others similar in character. We know that "inflammation," no matter in what organ seated, must terminate in resolution, ulceration, abscess, perforation, scirrhus, gangrene, or death; and that where it may even terminate favourably, a predisposition to one or other of the diseases named may be created, which a favourable opportunity may at any time develope.

To know this and, in addition to the formation of a correct *diagnosis*, understand the "theory of the circulation of the blood," and how to sustain life during the paroxysms of disease, by the judicious selection and application of *Hygiene*, *Dietetic*, and *Medicinal* agents, until the abnormal condition shall give place to recuperative reaction, is to do for "medical science" that which cannot fail to ensure for its possessor much future success, and for the profession and public much 'future' good.

ENTERITIS *(Inflammation of the Bowels).*

Description.—There is no part of the intestinal canal but is liable to disease, of which inflammation is generally the precursor. We have seen how it affects the *œsophagus* and *stomach*, and in what manner it may, under different circumstances, terminate. The food, we know, after passing through the process of mastication and insalivation, is carried into the stomach, where it mixes with the *gastric juice*, and after being formed into chyme is passed into the *duodenum*, where it receives the *pancreatic juice* from the pancreas, and *bile* from the liver, and is transformed into *chyle*. It is then carried through the intestines, and in its course gives off its nourishment through the absorbent vessels, passes into the lacteal circulation, and through the agency of the lungs and heart supplies the body with all the different structures of which it is composed. It is easy to see from this brief outline how much depends upon the *stomach*, *liver*, *pancreas*, and other organs, and how, through some irregular action in these, the bowels may become the seat of a disturbance dangerous even to life. It is also easy to see that *enteritis* holds the same relation to the *intestines* that *gastritis* does to the *stomach*; that, in fact, as the 'intestines' are but a prolongation or continuation of the 'œsophagus' and 'stomach,' they must sympathise with and be liable to the same diseases.

Causes.—Anything that interferes with, or obstructs the process of digestion; impure or improper food; unripe fruit, such as apples and gooseberries; vitiation of the pancreatic juice and bile; mineral and metallic poisons, whether prescribed as medicine, taken accidentally, or for suicidal purposes; strong drastic purging to relieve constipation, such as aloes, gamboge, elaterium, and croton oil.

Diagnosis.—Nausea, thirst, vomiting of bilious matter, loss of appetite, eructation, severe pinching pains, particularly around the navel; coated tongue, more or less inflamed at the point; obstinate constipation; rapid hard pulse; distension of the bowels; contraction of the legs; scanty urine, at times obstructed altogether.

Treatment.—*Hygiene.*—See that there is nothing left undone, so far as ventilation, cleanliness, and good nursing are concerned, for this is one of the great branches of medicine, which, if overlooked, reduces the chances of recovery very considerably.

Treatment.—*Medicine.*—Some few years ago it was universally the practice to apply leeches to the number of ten, fifteen, or twenty, and more, and even now this is continued with many old school practitioners, particularly in rural districts. In cities and towns, however, it is all but given up, through the influence of popular opinion, in consequence of the results that universally followed. Mr. Skey, of St. Bartholomew's Hospital, London, one of the greatest conservative surgeons of the age (as we believe, from long acquaintance with his practice), speaking of his early experience of the treatment of inflammatory disease, says, "For how many years has the profession been deluded and cajoled by false evidence on the condition of the blood drawn during inflammation. Is the blood buffed and cupped? Then bleed again, and again. *But in this unequal contest* DEATH GENERALLY WON THE RACE, and the physician had only to lament that he had not bled earlier and bled more freely. 'Buffed and cupped' were household words among the bleeding generation, the true disciples of the great Sangrada; and it was not till long subsequent to the interesting discovery that pregnant women circulate blood of the same character, that the lancet was somewhat checked. If a man fell down in the street, no matter from what cause—whether from *inanition* or from *repletion*—the public cry

was, 'Bleed him, bleed him:' and the occasional recusancy of a sensible practitioner, who was called into consultation with the multitude [of practitioners—*Ed.*], raised the question of his professional competency in the minds of these self-elected authorities."* It is just sixteen years since Mr. SKEY ventured to speak thus freely, but it was full fifty years before this that the wisdom of depletion was called in question; indeed, we may say there were individual exceptions, although few and far between, continually cropping up from the days of our immortal HARVEY. It was in America, however, where the first successful stand was made against it: but so dark were the times that our late sturdy countryman, WILLIAM COBBETT, was heavily fined and sold up, in that great country, for calling the very celebrated Dr. RUSH (who bled everybody that came under him) "a Sangrado." The terrible sacrifice of life from the *lancet* has to a great extent passed away: still there remains much to be done, nor is it too much to say that what has been gained by its disuse has to a great extent been lost by the introduction and increase of other depletive agents in every respect as destructive. We pass from this digression, however, to the treatment.

Relieve the bowels at once with the following enema:—

℞ Ulmus Fulva (Slippery Elm, in powder)..... One drachm.
Sugar, coarse..... Two ounces.

Mix the whole together until it is well incorporated, after which pour on gradually a full half pint of warm water, stirring it slowly the while.

This done, prescribe a "Medicated Vapour Bath" of the *artemisia vulgaris* (mugwort), or in its absence the "Medicated Foot Bath." See "Index" and *Gastritis*, pages 326 and 327, and follow out the directions.

Prescribe hot flannels saturated and wrung out of the same herbal infusion. Apply the "bottle of hot water" to the feet, and prescribe the "Emetic" if the tongue is coated and there is evidence of bilious accumulation or vomiting of bilious matter. And should the disease be complicated with gastric symptoms, give the "Drops" as recommended in *Gastritis*, with the "Digestive Food."

It will be well to administer the "enema" every four or six hours, and not to relax "active treatment" until the violence of the symptoms are greatly mitigated or removed.

* "Prevalent Treatment of Disease," by Frederic C. Skey, F.R.S. 1853. Chapman and Hall, Piccadilly, London.

We are to remember that the circulation must be equalised, and that the "inflammation" must be removed by "resolution," for if this is not, or cannot be done, the disease must pass into a chronic condition, or terminate in *ulceration*, *abscess*, *perforation*, or *gangrene*.

Relieve the bowels: soothe, nourish, and sustain your patient, and carry the offending or irritating matter out of the system. Do this: keep up gentle diaphoresis with peppermint or hyssop tea, and there will be little to fear, unless the patient previously laboured under a low condition of vitality, or the system was exhausted from some particular form of organic or deeply-seated chronic disease.

In *Enteritis*, as in *Gastritis*, the "ulmus fulva," or "Digestive Food," is of inestimable value. Used as an "enema" or injection, its soothing influence upon the bowels is felt at once, and whether we consider it as an ordinary dietetic agent, or regard it as a medicine, or as both combined (which it really is), there is nothing with which we are acquainted that can supply its place.

PERITONITIS *(Inflammation of the Peritoneum).*

Description.—This form of inflammatory disease is connected with the bowels, but more immediately with the serous membrane called the 'peritoneum,' which lines and envelopes the abdominal organs. It is much more dangerous than *Gastritis* and *Enteritis*; runs its course more rapidly, and if not treated carefully and prudently, terminates, in some cases, under eighteen or twenty-four hours.

Causes.—A low state of vitality, sudden chill from exposure, drinking too freely of cold water while fatigued and in a state of perspiration, constipation of the bowels, wounds, bruises, injuries of the abdomen, or anything that arrests or obstructs the regular supply of blood to the capillary vessels which nourishes and sustains the 'membrane.'

Diagnosis.—Alternate fits of heat and cold, extreme pain throughout the whole of the abdomen, tongue thickly coated with white or brown mucous, constipation, nausea, vomiting, urine high coloured and scanty, breathing difficult. As the disease advances the features lose their natural expression. The patient lies upon his

back with the legs flexed or drawn up upon the abdomen. This is followed with increasing prostration, and vomiting of a brown grumous fluid, coldness of the extremities, stupor, and death.

TREATMENT.—*Hygiene.*—See "Index."

TREATMENT.—*Medicine.*—See *Enteritis*, pages 328 to 330, and follow the treatment out perseveringly. Use the "ulmus fulva," or "Digestive Food," as "enemata" freely; give the "emetic;" apply the "stone bottle of hot water" to the feet, and hot flannels saturated and wrung out of the infusion of *artemisia vulgaris* Equalise the circulation, in fact. Sustain your patient, and remember there is not a minute to lose.

Mr. SKEY, from whose work we quoted in *Enteritis*, speaking of the treatment for this disease, says, "For many years I noticed the results of treatment of *Peritonitis* by depletion, and it is remarkable how few were saved; and so universal was the result, that for some years almost every case was, in my judgment, consigned to the grave, so soon as the resort to leeches was the practice adopted." What a serious reflection; and how difficult it is to break down prejudice and remove error, may be seen in the treatment even of the present time. We turn, for instance, to a modern standard work, and read,—"In recent and acute cases bleeding from the arm, followed by leeches and warm fomentations, and the internal use of tartar-emetic, combined with calomel and opium, in full doses, and at short intervals, so as speedily to affect the system. In very severe cases mercurial inunction may be employed at the same time. If the stomach be irritable, the tartar-emetic must be omitted. In less severe cases leeches to the abdomen, followed by warm fomentations, and calomel and opium internally." *

HEPATITIS *(Inflammation of the Liver).*

DESCRIPTION.—The Liver is the largest gland in the body, and although we are not so well acquainted with its functions as with those of the lungs, stomach, and other organs, we know that it is

* Guy and Harley. London: Churchill and Sons. 1864.

liable to disease, and that when it is disarranged the system more or less suffers. It is seated just below the diaphragm, extending from right to left, in close proximity with the *stomach*, *pancreas*, and *spleen*, with which it acts in the process of digestion and assimilation, and without which these very important functions could not possibly go on. Its weight in the adult is about four pounds, and its principal use is to secrete the bile which is carried into the "duodenum" through the gall duct, and from the action of which the "chyme" prepared in the stomach is formed into "chyle," preparatory to its being transformed into blood and becoming a part of the living body. It is divided into *acute* and *chronic*, in connection with which there are changes of structure and complications which it will be necessary to consider.

Causes.—Excesses in eating, drinking, and smoking; working under a high temperature; constant exposure to *malaria*, as in the fens of Lincolnshire, and low lands of Kent and Somersetshire: residing in tropical climates, sudden transitions from cold to excessive heat, change of climate, exhaustion, &c.

Diagnosis.—Constant pain, principally on the right side and right shoulder, beneath the scapula or blade-bone; urine high coloured; conjunctiva more or less yellow; costiveness, alternated with diarrhœa; hot feverish skin; motions clay-coloured from the absence of bile, and in some cases vomiting from obstruction of the gall duct: frequent enlargement of the abdomen, and bilious accumulation in the stomach.

Treatment.—*Hygiene.*—What are the causes? We must satisfy ourselves of these, and adapt our treatment to the requirements of the case, for much depends upon this. Like all other inflammatory disease, if not judiciously treated, it may become chronic, or terminate in *scirrhus*, *abscess*, or *gangrene*.

Treatment.—*Medicine.*—There is no form of inflammation where it is more necessary to adopt a regular and uniform treatment, and first the skin must be attended to. Prescribe the following "Medicated Bath":—

℞ Galium Aparine (Clivers, dry herb) ..... Three ounces.

Infuse in a gallon of boiling water, and when sufficiently cool let the patient stand in it, while every part of the body is being bathed; after which rub dry, and apply the "Compound Mustard Poultice" (see "Index") between two cloths over the part affected, as hot as it can be borne, whilst the patient is in bed. This done, prescribe

℞ Podophyllin ..... One grain.
Sanguinaria ..... One grain.

Mix and give in a little roast apple or preserve.

In about two hours after this has been taken the patient should drink freely of the following:—

℞ Eupatorium Perfoliatum (Boneset, herb dry) ..... One ounce.
Senecia Vulgaris (Groundsel) ..... Half ounce.

Infuse in a quart of boiling water, let it stand covered, keep warm, and give a wineglassful unsweetened, every ten minutes, until the whole is taken.

"What," some over-sensitive patient or hypercritical friend may say, "take a whole quart of medicine at once?" Why, ten to one but they would swallow as much grog or a gallon of beer in the same time, and make no bones of it. Our purpose, however, is this. The "medicine"—as harmless as food—acts upon the congested and inflamed tissues, and relieves the system of the obstructed or superabundant bile, which is the cause of the disease. In fact it will do its work; that is to say, if there is a superabundance of 'bile' in the stomach, it will remove it by *emesis;* or if there is a deficiency in the intestines from obstruction of the gall duct, it will carry it through and relieve them by *catharsis*, whilst, at the same time, it removes from the portal veins the congestion, and reinvigorates and carries fresh arterialised blood to every part of the system; thus relieving the kidneys and skin, and doing at once that which the case imperatively demands.

If this treatment is carried through there will be every chance of the disease terminating in *resolution*—that is to say, passing off without danger from any of the terminations that follow the more fashionable treatment of the age.

It is important to bear in mind that the system must be sustained by such light nutritious food as the stomach will admit, and that active treatment must be continued so long as the symptoms continue. "Inflammation" is governed by fixed principles, and runs its course agreeably to the innate or natural powers of the body, or the

means employed to remove it. To depress by agents that bear no relation to the recuperative powers of life, is to prolong the disease, reduce vitality, and decrease the chances of recovery. To remove the abnormal conditions by simple natural medicinal agents, is to assist nature and increase the chances of recovery. This is just the difference; and as our aim is to raise medicine up to a useful, safe, and practical science, we shall, we feel assured, be excused for this slight digression.

We presume that the medical attendant or student understands what "acute disease" is, and that he is fully capable of managing this or any other case of a similar character. He will know that until the severer symptoms have passed there can be no safety for the patient, and will regulate his treatment agreeably with the conditions and requirements of the case. He will also know that in the struggle between *life* and *death*, the strength must necessarily be reduced, and will wait upon and assist nature during the progress of convalescence. He will nourish the patient well, and see that the different organs do their parts in the work of recuperation. He will note particularly the complications (if any), and attend to them. That it will be necessary to pay particular attention to the liver we may feel assured; at the same time we must be careful not to over stimulate, or over work it, which is the same thing. What we really require to do, when the disease is removed, is simply to lend nature a hand, and for this purpose we may prescribe—

℞ Hydrastin ..... Ten grains.
Leptandrin ..... Ten grains.
Capsicum ..... Twenty grains.

Mix, divide into twenty powders, and take one three times a day.

Should it be necessary to act rather more freely upon the liver, prescribe—

℞ Compound Powder of Leptandrin ..... One grain.

Daily, or alternate days, as necessary.

For "Hygienic Rules," Convalescent Drinks, Diet Drinks, &c., see "Index" and "Appendix."

NEPHRITIS (*Inflammation of the Kidneys*).

Description.—The kidneys lie, one on each side of the spine, in the lumbar region, just in the centre of the back, snugly embedded in fat, and their purpose in the economy of life is, to excrete or separate the waste material and uric acid from the blood. They are subject to disease the same as every other organ or part of the body, and more particularly to "inflammation," which, if neglected or improperly treated, often becomes so serious as not only to endanger but to destroy life.

Causes.—Hard drinking of malt liquors or spirits; sudden chills from exposure, or drinking cold water while in a state of perspiration; external injuries; violent fatigue from riding, running, or jumping; retention of urine, cantharides, turpentine, calculus, rheumatism, or gouty diathesis.

Diagnosis.—Alternate fits of heat and cold, pains in one or both sides of the back, extending to the groins and thighs, nausea, constipation, urine scanty and high coloured, or suppressed altogether, flatulence, distension of the abdomen, skin dry and hot, faintness, restlessness, headache, debility, urine mixed in extreme cases with bloody matter or pus.

It is divided into *acute* and *chronic;* and the indication of treatment is, the removal of the "inflammation" by *resolution.*

In this, as in all other acute inflammatory attacks, the same principle obtains. The offending cause (whatever it is) must be removed, or the disease can do no other than degenerate or pass into a chronic form, and terminate in disorganisation.

Treatment.—*Hygiene.*—From what cause has the 'inflammation' arisen? Settle this: remove it; and see that the conditions of cure, that is to say, good nursing, ventilation, cleanliness, diet, &c., are all attended to.

Treatment.—*Medicine.*—Prescribe the following "Medicated Bath"—

℞ Althea Officinalis (Marsh Mallow herb, dry) ..... Four ounces.

Infuse in six quarts of boiling water, and when sufficiently cool, let the patient stand in it for about five minutes, whilst the attendant bathes the surface of the skin all over; after which, rub dry, wrap up warm, and give as an "enema"—

℞ Ulmus Fulva (Slippery Elm, powder, fine) ..... One drachm.
Sugar, coarse ..... Two ounces.

Mix well, and gradually pour on twelve ounces of soft or distilled warm water, gently stirring it the while.

The longer it can be retained in the bowels the better.

As soon as the "enema" has acted, the patient should take a basin-full of—

℞ "Digestive Food" ..... Two drachms.
Boiling Milk and Water ..... Twelve ounces.

Pour on the latter gently, stirring it the while, and when sufficiently cool use as ordinary diet. Too much cannot be taken, in fact it may form the principal diet so long as the "inflammation" continues, using "Barley water" in change.

The "Compound *Ulmus Fulva* Poultice" (see "Index") should be applied between two cloths as hot as possible, large enough to cover the whole centre of the back, and be allowed to remain on as long as it can be borne. The "stone bottle of hot water" should also be applied to the feet, and as an aperient, to relieve the bowels, prescribe—

℞ Eupatorin ..... Ten grains.
Podophyllin ..... Four grains.
Ginger ..... Twenty-one grains.

Mix well, divide into seven powders, and give one daily. Use the "Digestive Food" freely.

Should the stomach be disordered, that is to say, if there is sickness and the tongue is much furred, give the "Compound Lobelia Emetic" (see "Index"). In fact this will often afford relief when everything else fails. We are to remember, however, that old people are not so easily vomited as younger patients, and that we cannot resort to them with the same freedom as with the young. As an ordinary diuretic drink, prescribe—

℞ Eupatorium Purpureum (Queen of the Meadow) powder Half ounce.
Buchu (powder) ..... Two drachms.

Infuse in a quart of boiling rain or distilled water; cover, and let it stand, well mixed, for half an hour; strain, and take unsweetened, in wineglassful doses, every hour throughout the day.

In all cases connected with the "kidneys," it will be necessary, after the 'acute' attack has passed, to carefully examine into the general condition of the system, for it often happens that the "inflammation" is merely the concomitant of some deeply-seated affection, rather than a primary disease.

It will also be necessary to pay particular attention to the complications that now and then attend it; and after the removal of the acute symptoms, to protect the kidneys, by wearing a double flannel bandage, lined with soft fleecy cotton, next the skin.

CYSTITIS (*Inflammation of the Bladder*).

Description.—This disease is not so common as some other forms of inflammation; and, when it does occur, it is more frequently in the neck of the bladder than in any other part. It is divided into *acute* and *chronic*. In some cases it is troublesome, tedious, and difficult to remove.

Causes.—Exposure to cold, hard drinking, excessive venery, gonorrhœa, stimulating injections, cantharides, turpentine, copaiba long continued or in large doses, local injuries, stricture, calculus, suppression of urine, or anything that interferes with micturation.

Diagnosis.—Pain and swelling in the lower parts of the abdomen, alternate fits of heat and cold, frequent desire, and difficulty of micturition, scalding in the urethra, heaviness and aching in the loins, tenesmus, distension of the bladder and abdomen, straining or bearing down pains, attended with the passing of a few drops, or a single drop, of urine only.

Treatment.—*Hygiene*—(See Inflammatory and other Diseases; or, turn to "Index," "Hygiene.")

Treatment.—*Medicine.*—Prescribe a "Medicated Bath," as follows:—

℞ Eupatorium Purpureum (Queen of the Meadow, herb, dry) ..... Six ounces.

Infuse in a gallon and half of boiling water; and, when sufficiently cool, use

it as a "sitz bath," that is to say, let the patient sit in it, whilst the attendant bathes the surface of the skin all over for about eight or ten minutes; after which, rub thoroughly dry, wrap up warm by the fire, and use as an "enema"—

℞ Ulmus Fulva (Slippery Elm, fine powder) ..... One drachm.
Powdered White Sugar ..... Two ounces.

Mix until the two are well incorporated, and pour on slowly twelve ounces of distilled or soft water, gently stirring it the while. Inject this, blood warm, into the bowels, and if it can be retained for ten minutes or so, all the better.

We are to remember that the same end must be kept in view in this as in all other "inflammatory" disease, it must be removed by *resolution*, or it will degenerate into a chronic condition.

In addition to the "enema," which may be given every four hours, so long as the pains and difficulty of micturition continue, the following should be applied as a *cataplasm* or poultice:—

℞ Ulmus Fulva (Slippery Elm powder)..... ..... Two ounces.

Mix with an infusion of Eupatorium Purpureum (Queen of the Meadow), spread between layers of soft cotton cloth, sufficiently large to embrace the *perineum* and *pubes* (from the seat to the front of the abdomen), and fasten it on as hot as it can be borne. Apply the "stone bottle of hot water" to the feet, and prescribe

℞ Buchu .... Half drachm.
Blood root .... Ten grains.
Lobelia herb (in powder)..... ..... Half drachm.

Mix, and infuse in a full half-pint of boiling water, cover, let it stand twenty minutes, strain off the liquid, and give in wineglassful doses, unsweetened, every ten minutes, until the whole is taken.

This medicine will act as an "emetic" if there is repletion of the stomach: and if not, it will act as a *relaxant*, *nauseant*, *expectorant*, and *diaphoretic*.

As an "aperient," to relieve the bowels (see *Nephritis*, page 337), and give in the same way; use the "Digestive Food" also, as there recommended; and as a "diluent" prescribe—

℞ Eupatorium Purpureum (Queen of the Meadow in powder) .... One ounce.

Infuse in a quart of boiling water, mix well, cover, let it stand until the powder has settled, strain, keep warm by the fire, and use as ordinary drink daily (unsweetened), in wineglassful doses every hour.

It will be necessary to remember that *Nephritis*, *Cystitis*, *Enteritis*, and the whole host of 'acute' inflammatory diseases, are to be considered in many cases as *secondary* rather than *primary*, and that

whilst we have to deal with 'acute' cases, that the "chronic" often underlying them require consideration, and will possibly need constant supervision even after the attacks have passed.

PERICARDITIS *(Inflammation of the 'Pericardium,' or External Covering of the Heart).*

Description.—This disease is not so common as many other forms of inflammation; indeed it is very rarely found, except as a concomitant of acute or gonorrhœal rheumatism, or as a complication of pneumonia, pleurisy, or some of the more immediate structures that surround and retain the parts *in situ*. It is divided into "acute" and "chronic."

Causes.—Hereditary predisposition from gouty diathesis or articular rheumatism. Strong medicines taken during the inflammatory stage of gonorrhœa, such as copaiba, oil of cubebs, turpentine, sulphate of magnesia (Epsom salts), strong injections of nitrate of silver, sulphate of zinc, or anything that has a tendency to suddenly arrest the urethral discharge and induce metastasis. It may also be occasioned by poisonous metallic and mineral preparations, applied for the purpose of reducing arterial excitement during inflammatory attacks of the respiratory organs.

Diagnosis.—Alternate fits of heat and cold, shooting pains around the region of the heart, increased by respiration; full, hard, jerking, irregular pulse; violent palpitation, feeling of oppression, faintness, hiccough, sobbing, difficulty of breathing, and apparent suffocation. As the disease advances the symptoms increase, until they become insupportable; respiration is more difficult; a cold perspiration breaks out upon the skin; the face puts on a dark, puffy appearance; and the patient sinks exhausted.

Treatment.—*Hygiene.*—Look well to ventilation and careful nursing; avoid excitement of every kind; place your patient in a position where the chest may not be incommoded by pressure, where the best possible supply of air may be secured, free from sudden changes of temperature. Keep the apartment cool, and allow no unnecessary intrusion.

TREATMENT.—*Medicine.*—The indication of cure is to subdue the inflammation. If this is done future danger will be removed; if not, chronic *Pericarditis*, adhesion, or degeneration will supervene, and finally terminate in death. Prescribe the following:—

℞ Ulmus Fulva (Slippery Elm Powder) ..... Two ounces.

Mix in sufficient hot water, and form into a cataplasm or poultice, place it between soft cotton cloths, and apply over the part affected; cover the whole chest in fact.

As an internal medicine prescribe—

℞ Antispasmodic Powder ..... Two drachms.
Leonorus Cardiaca (Motherwort, herb, dry) ..... Half ounce.
Sugar, lump ..... Two ounces.

Infuse in sixteen ounces, or a full half pint of boiling water, mix, cover, and let it stand half an hour, strain, and give a tablespoonful every fifteen minutes until the whole is taken.

We should not resort to anything exciting, and must avoid, at the same time, whatever has a tendency to depress. The above simple remedy has an influence over the disease unsurpassed by any with which we are acquainted. "Digitalis," or Fox Glove, is one of the old school remedies, but it accumulates in the system, and on that account we object to it.

The worst case we ever met with was that of a man in the town of Gainsborough. A gentleman of the name of Le Warner, a great advocate for the use of simple herbal medicines, sent us a telegram to London:—"Come at once, and bring medicine for a case of very bad fever." There was no time to lose, for the train started in an hour, so we hurriedly put into our "Case" a little medicine, and were off. We found, upon arrival, all the symptoms of *Pericarditis* in its very worst form. The pulsation was hard, irregular, and remittant, and the palpitation rapid. The *rubbing sound*, occasioned by friction of the inflamed surfaces, and so well known, was most distinct, and "oppressed respiration" severe. We prepared the medicine, however, as prescribed; and being present to watch its action, gave at the same time—

℞ Veratrum Viride (Tincture of) ..... One drop
with every two tablespoonfuls of the Medicine.

The pulsation readily passed from a hundred and ten to a hundred, from that to eighty, and from eighty down to sixty; the dry hot skin gave

way to a soft, moist condition, and we had the satisfaction of seeing the disease yield in the course of the night. The next day we left our patient free from danger, under the care of a clever young medical friend (Mr. JOHN DRUST, since deceased), and had the satisfaction of knowing that the case, in less than one week afterwards, had terminated in every respect satisfactorily.

We would simply observe, in relation to the "Tincture of Veratrum," that it is a remedy unequalled in all diseases where there is great arterial excitement, and the only condition that should accompany its use, is *attention* to symptoms, because its action, if given in over doses, is peculiar and, to those unacquainted with it, rather alarming.

The case to which we have directed attention was by no means an exception to this, for about midnight, or near five hours after taking the medicine, free *emesis* followed, with partial loss of sight and great prostration. After vomiting, however, the patient speedily rallied, slept quietly, and in the morning was so far recovered as to take a cup of weak tea and a little dry toast. We are to bear constantly in mind that nothing depressing or injurious should be employed in inflammation of any kind, but more particularly in disease of the heart. We should also remember that acute attacks have a regular course to run, and that if we interrupt them by violent or improper treatment we assist to break down the system rather than break up the disease. Keep your patient at ease, so far as possible, both in body and mind, and in addition to the medicine prescribed, excite slow but gentle diaphoresis, as follows:—

℞ Mellissa Officinalis (Balm) ..... One ounce.
Leonorus Cardiaca (Motherwort)..... Half ounce.

Infuse in a quart of boiling water, cover, and let it stand until sufficiently cool, strain, sweeten with lump sugar, keep hot by the fire, and drink freely.

As a diet, particularly during the inflammatory stage, the "Digestive Food" may be used with advantage; after which, whatever is light and nutritious. Under all circumstances it will be necessary to attend to whatever complications arise, and not to overlook the ordinary fæcal discharges; for which purpose we may prescribe at any time—

℞ Compound Powder of Leptandrin ..... One grain.

Triturate or rub up with a little white sugar, and give in roast apple or preserve.

ENDOCARDITIS (*Inflammation of the Endocardium, or Inner Membrane of the Heart*).

Description.—The whole, or any part of the heart, is liable to disease, and *Endocarditis* is distinguished from *Pericarditis* from its being confined to the "inner membrane." It may be a complication of the latter, or the 'latter' may be accepted as a 'complication' of it, in which case it is difficult to tell the one from the other.

Causes.—(See *Pericarditis*, page 340).

Diagnosis.—See also *Pericarditis;* for, like it, it commences with more or less fever, hot dry skin, accompanied with restlessness, anxiety, irregular arterial action, difficulty of breathing, fainting, cold sweats, and falling in or shrinking of the features. As the disease advances the lips and cheeks become dark, the hands and feet puffy, the pulse weak and feeble, and in some cases slight convulsions. *Endocarditis* in its acute form is rarely fatal, unless it is complicated with *Pericarditis*, *Pleurisy*, *Bronchitis*, or some other disease to which the chest is liable, in which case it must be considered as a complication rather than as the primary disease.

Treatment.—*Hygiene.*—(See *Pericarditis*, page 340).

Treatment.—*Medicine.*—(See *Pericarditis*, page 341).

We call to mind with pain the position in which we were placed during our examination for the degree of the L.S.A., London. We were told prior to examination, by a friend who had passed the ordeal, that we should most surely be tested upon "treatment for disease of the heart;" "and if they get you upon that string," said he, "it will occupy pretty nearly, if not all the time." Why "Disease of the Heart" was predicated, we afterwards learned, was because it was a favourite branch of practice with one of the examiners. Of course we were pretty well primed up, although it went against the grain; but we contrived to get through it. The normal and abnormal sounds was an easy affair, but the "treatment" bothered us, so difficult is it to substitute error, or what one believes 'error,' for truth.

We quote the following from one of our standard medical authorities:—

"The treatment of inflammation of the heart is the same as that of acute rheumatism, only modified to meet the emergency. Bleeding must be employed if the general state of strength and excitement show it to be demanded, and that it can be borne; *cupping between the shoulders, or leeches to the præcordia*, are indispensable. Full doses of *opium* at bed time to insure sleep, and *calomel*, with smaller doses of *opium*, in such quantities as the severity of the disease may demand during the day; *purgatives*, so as to clear out the abdominal viscera, and *colchicum* are the main remedies. And it should be observed that it will be right to *leech* or *cup* the instant any abnormal sound in the region of the heart is heard, *although no symptom of uneasiness there may be complained of by the patient.* WHEN THE ACUTE PAIN HAS SUBSIDED, BLISTERS WILL HASTEN THE ABSORPTION OF EFFUSION OR DEPOSIT OF LYMPH."*

But it may be said "this treatment is not fashionable at present." Let us see:—

"If the disease come on suddenly in a vigorous plethoric person, blood may be taken from the arm, so as to make a decided impression on the pulse, and this may be followed by cupping or leeches over the region of the heart; but if the disease supervene, as it generally does in the course of an attack of acute rheumatism, or in one whose strength is already reduced, *topical bleeding by cupping and leeches will suffice.* In no case should depleting measures be carried to excess. This part of the treatment may be assisted by purgatives, rest, and the antiphlogistic regimen; *and when depletion has been carried to the proper extent, a blister may be applied over the region of the heart*, and *kept open for a time by savin ointment.*"

This treatment is that which is applied to subdue the inflammation; but to promote absorption the following is employed:—

"*Mercury* freely given every one, two, or three hours, in combination with *opium*, and accompanied by *mercurial ptyalism* till the gums are sore. In very acute forms of *Idiopathic Pericarditis*, the *mercury* may be combined with *tartar emetic*, in doses of 1-6th to 1-4th of a grain; and in *Rheumatic Pericarditis*, with the *extract of colchicum*, in doses of one, two, or three grains."†

Not one word by way of excuse need be offered for quoting so freely from these authors.

If their treatment is RIGHT, ours must indeed be WRONG; and if

* "Mead's Manual for Students Preparing for Examination at Apothecaries' Hall, or other Medical Institutions." Third edition. London, 1859. Henry Renshaw, 356, Strand. From Dr. Watson's Lectures.

† Drs. Guy and Harley. From Hooper's "Physicians' *Vade Mecum*," 1864. London: Churchill and Sons.

'wrong,' what a terrible responsibility rests upon us, for the ERROR is not of a character to be removed by human compensation, it is nothing less than DEATH to whoever shall be weak enough to practice it. That the fatality resulting from the treatment of old physic, as quoted, has long been acknowledged, and the practice condemned by the most advanced minds in the profession we well know, and that the more intelligent no longer submit to it is equally well known, still it is taught even in modern works as the *ne plus ultra* of medical science.

What a strange anomaly! We must do Dr. Watson the justice to say, however, that he has lately changed his views, and has become, although late in life, a convert to a much simpler practice, so far as his late and limited opportunities would admit. (See pages 140 and 141 of the present work).

PHRENITIS *(Inflammation of the Brain).*

DESCRIPTION.—The brain and its membranes are equally liable to inflammation, and have each received from time to time an equal share of attention. When the substance of the brain is attacked it is called *Encephalitis* or *Phrenitis;* if it is confined to the membranes *(Dura Mater, Pia Mater,* and *Arachnoid)* it is called *Meningitis* or *Arachnitis.* In either case, however, it is inflammation, and we shall content ourselves with distinguishing the different phases of attack by the diagnosis or general symptoms, without considering the nice distinctions which serve but to confound rather than instruct; not that we would discourage the studious from investigating and adding to their stock of knowledge by every possible means; but whilst we desire to place before them that which is really valuable, we discard that which is useless and which serves only to encumber medicine without improving it.

CAUSES.—Anything that disturbs or obstructs the cerebral circulation, whether it arise from debility, passion, hard drinking, running, severe study, exposure to the sun, falls, excessive venereal pleasures, blows, suppression of the natural evacuations, strong mental emotions, or any other cause. "Every affection of the mind that is attended with either *pain, pleasure, hope,* or *fear,*" said Harvey,

"is the cause of an agitation whose influence extends to the heart or primarily to the brain—*Ed.*], and there induces change from the natural constitution—in the temperature, the pulse, and the rest—which impairs all nutrition in its course, and abates the powers at large." This description is applicable to inflammation wherever it is seated, but more particularly to the 'brain,' which is the seat of sensation, and the prime mover, not of cerebral inflammation alone, but of very many others.

Diagnosis.—Preternatural heat and fulness about the head, coldness of the extremities, throbbing of the carotid and temporal arteries, restlessness, pain in the stomach, nausea, constipation of the bowels, vomiting, hot dry skin, redness of the eyes, flushed countenance, delirium, often amounting to phrensy or madness; disturbed sleep, sudden starting from terror, grinding of the teeth, hatred of some one near, often of the medical attendant; swearing, and in some cases using incoherent and indecent expressions. The disease is uncertain as to the length of its duration. It may terminate fatally or favourably in a few days, or continue for weeks. It is at all times dangerous, if not arrested by judicious treatment, or if beyond the reach of medicine, as is very often the case, not in *Phrenitis* only, but in many other forms of inflammation. In favourable cases the disease passes off by resolution, the patient is restored to consciousness, and convalescence gradually supervenes. In unfavourable, the excitement gives place to *coma*, indistinct muttering, partial or total loss of sight, obstruction or retention of urine, cold sweats, twitching of the muscles of the face, paralysis; or it may finally terminate in softening of the brain.

In *Meningitis*, or where the *Arachnoid* and *Pia Mater* only are affected, the "diagnosis" puts on a different character. The disease generally comes on more sudden, accompanied with extreme pain in the head, screaming, and convulsions, contraction of the eyes or *Strabismus*, and vomiting.

Inflammation of the *Dura Mater* generally results from falls, blows, or injury of some kind, and the "diagnosis" is determined by the severity of the cause. In some cases, little or no notice may be taken of it, and a week, or even a month or more may pass before the results are seen. We have known where a severe blow on the head in childhood has terminated in *Encephalitis* and paralysis in man-

hood and womanhood: nor is it too much to say, many cases, for which we find it difficult to account, may be traced to causes equally remote. It differs in its "diagnosis" from inflammation of the *Pia Mater* and *Arachnoid*, or *Meningitis*, by the manner of its invasion. The pain is intermittent or remittent, and comes on gradually; the mind in some cases retains its normal condition, or is affected but slightly, and the patient gradually passes into a comatose condition. These are the characteristic distinctions which mark the different conditions of the disease when it is confined exclusively to any one of the parts named. When the whole are implicated, however, the "diagnosis" invariably corresponds to the extent of the affection.

Treatment.—*Hygiene.*—Consider and determine the cause or causes of the disease. Is it *idiopathic* (from some doubtful or unknown 'cause'), *traumatic* (from a blow, fall, wound, accident, or some positive 'cause'), or *symptomatic* (symptom of some other disease)? Not that this interferes in any way with the "hygienic treatment." It is necessary to know, however, what the disease is, and what we are called to do. The "brain" is the seat of sensation, and the *cranium* (osseous or bony structure that surrounds it) is the natural provision within which it is placed and protected, not only from all ordinary accidents, but without which it would be impossible to exist. A proper supply of pure air, we know, is at all times necessary: but in "inflammation of the brain" it is particularly indicated; hence the apartment should be thoroughly well ventilated, the temperature moderately cool, and the patient kept as quiet as possible.

Treatment.—*Medicine.*—We must simply notice the one particular feature in this, as in all other inflammatory disease, whatever the cause may happen to be, and base our treatment upon it. There can be no such thing as 'inflammation' without a preternatural determination of blood to the part affected, and neither the 'brain' nor its 'membranes' are any exception to this rule. One might really be surprised to see how difficult the most simple truths are to understand where first principles are unknown, if they knew not the power of error. Why are the extremities cold and the head hot? The answer is, because the blood has receded or ceased to supply the former, and is superabundant or in excess in the latter.

The practice even now is to shave the head, leech, blister, apply ice, purge with calomel, and narcotise with opium. This is the modern and modified treatment which obtains with the most advanced of the old school; there are some few, however, who still resort to the lancet, and who cannot believe, in spite of all evidence, in any other treatment. We name this merely to show the folly of the past, with no desire to condemn men nor their motives, and with the hope that more rational means may be employed for the time to come.

We are to remember that *Encephalitis* or *Phrenitis*, like all other forms of disease, may have different degrees of violence, and although presenting a similar appearance, in some cases may be very deeply seated, resulting from a tendency to, or gradual disorganisation of the arteries or some portion of the medullary, or soft substance of the brain. In either case there is no difference in the treatment, for after all that we can do nature alone must restore the part or parts. Medicine is simply the "handmaiden" of the physician; 'nature' is his master, and *kills* or *cures* in spite of his best exertions. How to restore or divert the blood from the brain to the extremities—equalise the circulation, in fact—is the great secret of cure. Has the patient enjoyed comparative good health, and is there no reason to suspect any deeply-seated chronic disease underlying the attack? Observe the tongue, note if it presents a coated appearance; look to the stomach, and see if it manifests a tendency to sickness. Prepare the "Medicated Foot Bath," or infusion of Artemisia Vulgaris (Mugwort), and bathe the feet for about ten minutes, and at the same time the whole surface of the body. After which rub the skin briskly, particularly the extremities. This done prescribe—

℞ Eupatorium Perfoliatum (Bone-set herb, dry) ..... Half ounce.
Capsicum, Pulv. (Cayenne, in powder) ..... Ten grains.

Infuse in rather more than a half pint of boiling water, let it stand until about blood warm, after which strain, sweeten with treacle, and use as an injection or enema.

After the bowels have been relieved, and the feet and skin attended to, put the patient to bed, and prescribe—

℞ Eupatorium Perfoliatum (Boneset herb, dry) ..... One ounce.
Lobelia herb (crude) ..... One drachm.
Capsicum Pulv. (Cayenne, in powder) ..... Ten grains.

Infuse in a quart of boiling water, let it stand covered for twenty minutes, after which express, sweeten with treacle, and give in wineglassful doses every

ten minutes until perspiration and nausea supervene. Apply cold water cloths to the front of the head and back of the neck, and a stone bottle of hot water to the feet.

The purpose of the medicine is to induce nausea, stimulate the circulation, and restore the equilibrium. As soon as this is done the medicine may be given at longer intervals. Keep the nausea and perspiration up, however, without inducing vomiting, if possible; not that there is any danger, for the pressure from the arteries and brain will be removed in ninety-nine cases out of every hundred without it; or if 'vomiting' should take place, it will result from a plethoric condition of the stomach, in which case it will be what is really needed; and herein is the advantage of simple organic medicines, if well understood and prudently administered, they do their work when it is needed, and how it is needed, and having done it, leave the body not only harmless, but in a condition to receive all the advantages of the recuperative process that nature sets up. So long as the excitement continues the medicine must be continued, and with it the "Enema" and "Medicated Foot Bath," daily, if necessary. To soothe the nervous system, reduce the delirium, or induce sleep, a pillow of the *Humulus Lupulus* (common hop) will answer every purpose; and in order to relieve the liver and internal viscera the following may be prescribed with advantage every day, or every second day:—

℞ Podophyllin ..... Half grain.
Ginger (powder) ..... Ten grains.

Cloths saturated freely with vinegar may be applied to the head during the paroxysms of cerebral excitement, in change with the 'cold water cloths'; and as a nutrient or daily diet the "Digestive Food" may be used with advantage. Slippery Elm, or Ulmus Fulva, may be also used as an enema daily, particularly after the excitement, or the early stage of the disease has passed. It acts not only as a 'nutrient,' but sedative, and combines the virtues of food and medicine. Sinapisms, or mustard poultices, irritating plasters and blisters, are of no use whatever; in fact they torture without affording relief; and narcotics serve only to retard the chances of recovery.

Keep your patient quiet, free from excitement, equalise the circulation, sustain the strength, and wait upon nature. There is no safety in any other treatment, nor is it possible to do more without

overstepping the bounds of prudence, and in the majority of cases doing more harm than good.

Should the disease arise from injury of the scalp, a severe blow or blows, concussion of the brain, or fracture of the cranium, surgical as well as medical supervision will be necessary, and it is of the greatest advantage to all parties concerned when surgical and medical knowledge can be had. If combined in the same practitioner all the better, but if not, it will be prudent on the part of the attendant to obtain whatever assistance is necessary.

For "Convalescent Drinks," &c., see "Appendix" and "Index."

OTITIS (*Inflammation of the Ear*).

Description.—The *Ear*, like every other organ or part of the body, is liable to inflammation. If it attacks the inner portion, or auditory canal, it is called *Otitis Interna;* if the outer portion, *Otitis Externa*. It is more common to children than adults, although it not unfrequently attacks the latter, and is either acute or chronic, according to duration and character.

Causes.—It is often a concomitant of, or sequelæ of Scarlatina, Measles, or of the eruptive diseases to which children are liable. It is also common to children of a strumous or scrofulous habit, or it may arise from the introduction of some foreign body into the ear; or from insects, blows, cold, or obstruction in the capillary circulation. In adults the principal cause of the disease is obstruction or cold; or from probing or picking the ear, with a view of removing some substance or particular pain.

Diagnosis.—Pain in the ear, either internal, external, or throughout, swelling, with increasing pain during mastication, noises in the head, aching of the temples, deafness, &c. In all cases, and all conditions of the body, wherever the ear is thus affected, the treatment must be uniform. It may be removed by resolution in nineteen cases out of every twenty if taken in time; but where it is allowed to go on, abscess and suppuration are almost certain to follow, which may implicate any part, or the whole of the auditory canal, destroy the *membrana tympani*, and render the patient partially or totally deaf for life.

TREATMENT.—*Hygiene.*—See that the conditions of health are attended to, and that good ventilation, pure air, warmth, cleanliness, and attention are applied. These are great requisites in all cases; but, if neglected, even this disease may become exceedingly serious. Above all things avoid draughts of cold air during the inflammation, for cold at all times is greatly against the cure.

TREATMENT.—*Medicine.*—"Pain," we have said in some of our earlier works, "is nature's monitor, warning us of danger, and directing or pointing out the necessity of action." But for "pain" disease and death might steal a march upon us at any time, and neither ourselves nor others have the least conception of what was going on until it was too late. Understood in its proper light and attended to, pain becomes the safeguard of life: and if we were wise we should listen to its gentlest whisper.

If there is "pain" in the ear, whether of *man*, *woman*, or *child*, the treatment should be the same. Where there is obstruction there is "pain." How do we know? The "pain" tells us so, and it speaks the truth. Is it slight? remove it! Is it severe? remove it! Has it been neglected and passed into abscess and suppuration? remove it! But how? Ah, there's the rub! Shall we tell you? Yes! Carry the blood through the obstructed part and it is done. Prepare and give the "Medicated Foot Bath" of *artemisia vulgaris* (mugwort), and bathe the skin all over at the same time, after which rub dry, and prescribe, according to age, daily if necessary—

℞ Compound powder of Leptandrin, from one to two grains.

This done, gather or pick off the leaves from the stems, sufficient, with the addition of a tablespoonful of *Ulmus Fulva* (Slippery Elm powder), to form a poultice. Mix the whole in sufficient of hot infusion of *Artemisia*, spread between a double cloth, and apply under the chin, sufficiently large to embrace one or both ears, as the case may be, fasten snugly, and raise the circulation as follows:—

℞ Angelica Herb, dry ..... One ounce.
Composition Powder..... Half drachm.

Infuse in a quart of boiling water, let it stand half an hour, after which strain, sweeten with treacle, and give in wineglassful doses every ten minutes, until the patient perspires freely. Keep the 'perspiration' up, by continuing the medicine at longer or shorter intervals, as necessary. The skin should be rubbed dry, and after perspiring freely for six or eight hours, the damp linen should be removed and dry supplied in its stead; during the day the ears should be syringed with warm milk and water, and a little cotton wool, saturated with equal parts of *olive oil* and simple *tincture of myrrh*, should be put into one

or both, and be fastened on with a piece of flannel sufficiently large to pass from under the chin to the top of the head.

Should the inflammation pass into "suppurative abscess," as it will do if not taken in time, syringe the ears with warm milk and water two or three times a day, and keep the "saturated cotton wool" constantly in the ears between the times of syringing.

The medicine, as recommended in the "inflammatory stage" of the disease, may be continued occasionally, whilst the system must be gradually raised or built up, in order that the disorganized tissue may renew itself.

A common practice with many among the poor is to roast a small onion, take the small centre part out, apply it as hot as possible, and fasten or keep a piece of flannel around the head to prevent its falling out, and at the same time protect the parts from cold. There is much merit in this simple method, and it may be copied by the wisest with advantage.

In very severe cases, a "Local Steam Bath" of the *artemisia* may be used with great benefit. An infusion of the herb, prepared in a quart jug, a cloth placed tightly over the top, tied on in fact, the head covered, the ear placed directly over the jug, and steamed as hot and long as it can be borne. Should both ears be affected, the "steam" may be drawn through the mouth, whilst the head is covered with a blanket. The purpose is to raise the circulation and expand the contracted parts.

The treatment in "chronic inflammation of the ear" in no way differs from "acute," except that "acute" cases, if taken in time and properly managed, may be removed readily and without danger; whilst "chronic," or long standing cases, require chronic treatment, or time, in order to restore the parts to their normal condition; or if this cannot be done, to remove the inflammatory tendency, and save whatever of the 'parts' remain from further disorganisation.

The means recommended answer either for adults or children: but the medicine must be regulated according to the age and general condition of the patient.

(See "Index" for "Lotions," &c.)

CONJUNCTIVITIS (*Acute Inflammation of the Conjunctiva*).

DESCRIPTION.—The eye is subject to inflammation the same as

every other part of the body, and there is no organ that requires more care or attention on the part of the medical attendant. The different parts which compose the eye have each received appropriate names, and the nomenclature of the disease is determined by the part affected. When the *Conjunctiva* (external coat of the eye and lining of the eyelid) is inflamed, it is called *Conjunctivitis;* when the *Sclerotic* is inflamed (coat or lining underneath the *Conjunctiva),* it is called *Sclerotitis;* when the *Cornea* is inflamed (anterior coat of the eye), it is called *Corneitis;* and when the *Iris* is the part affected (fibres of the *Choroid,* or lining of the membrane of the internal tunic of the eye), it is called *Iritis;* but there is no necessity for us to treat the whole of these as distinct diseases, although it is necessary to know that they are so treated and why they have received their names.

Causes.—Sudden chills from currents or draughts of cold air; injuries from foreign bodies, or entrance of small irritating substances of any kind; over fatigue of the eyes, by working under a high temperature, or before strong fires; *Syphilitic* disease; *Rheumatic Diathesis;* or anything that interferes with, vitiates, or obstructs the capillary circulation upon which the healthy condition of the eyes depend.

Diagnosis.—Irritation, itching, stiffness, intolerance of light, pricking pain, as if something sharp had been thrust suddenly into the eyes, rough painful feeling, as if sand or some such substance had lodged underneath the lids. The eyes, one or both, present a red inflamed appearance, which partially or wholly affects the whole *Conjunctiva.* As the pain subsides, a thick mucous is secreted, which unites the eye-lashes, and makes it difficult to open or separate them, particularly in the morning. When the mucous is secreted freely, it is called *Ophthalmia,* or *Adult Ophthalmia Purulenta* (see page 152), in contradistinction to *Infantile Ophthalmia.* If the secretion is the result of a strumous or scrofulous *Diathesis,* it is called *Adult Strumous Ophthalmia;* and if it is from *Gonorrhœa, Adult Gonorrhœal Ophthalmia,* the diagnosis of which is generally well understood, and the different types of the disease are well distinguished.

Treatment.—*Hygiene.*—Protect the eyes with a shade, give them all the rest possible, and take care to avoid everything likely to irritate them in the slightest degree.

TREATMENT.—*Medicine.*—Avoid leeches, blisters, and all the ordinary collyriums, such as *acetate* of *lead*, *sulphate* of *zinc*, *sulphate* of *copper*, and *nitrate* of *silver* (there is mischief in the whole of them), and be careful not to resort to violent measures of any kind.

As an external application warm milk is one of the best that can be employed. Bathe the eyes freely with this every hour, or every second or third hour, throughout the day, so long as the pain and inflammation continue. Keep the bowels freely open with the following:—

℞ Turkey Rhubarb (powder) ..... Seventeen grains.
Podophyllin ..... Three grains.
Irisin ..... Ten grains.

Mix well, divide into twenty powders, and take one powder three times a day.

As a daily drink prescribe—

℞ Composition Powder ..... Thirty grains.

Infuse in a quart of boiling milk and water, equal parts, sweeten with lump sugar, let the powder settle, keep it warm by the fire, and use freely throughout the day and at bed time.

This acts as a diluent, nutrient, and gentle stimulant, carries the excess of fibrine out of the blood, stimulates the circulation, relieves the conjested capillaries, and sustains the system whilst nature performs the cure.

As soon as the inflammatory or painful condition is removed the following may be used:—

℞ Tincture of Sanguinaria (Blood Root) ..... Two drachms.
Distilled, or Soft clear Water ..... Two drachms.

Mix, press the lids gently apart (down and up), and drop from three to four drops, three or four times daily, in and around them.

If there is a secretion of mucous, use the following:—

℞ Tincture of Geranium Maculatum (Cranes Bill)..... One drachm.
Tincture of Sanguinaria (Blood Root) ..... One drachm.

Mix, and drop into the eyes in the same way as the last.

Should the disease arise from a strumous or scrofulous condition, see "Index"—*Scrofula*, and in addition to the medicines now recommended, treat agreeably with the directions there given. Should a rheumatic diathesis be the active cause, see "Index"—*Renal or*

Rheumatic Pills, and use in addition to the medicine prescribed. Or should gonorrhœa be the active cause, see "Index"—*Compound Gonorrhœal Pills*, and use with the medicine already recommended. It will be important to bear in mind that although there is seldom any great degree of constitutional disarrangement in "acute inflammation of the eyes," that wherever there is a low state of vitality underlying it, that the disease is prolonged in proportion, and that it is necessary to raise the system up in order to treat it successfully.

It may not be out of place to remind the practitioner that the eyes, like every other part of the body, depend for vitality upon the blood, and that whatever obstructs, vitiates, reduces, or removes it, equally affects the power of vision, or induces total blindness. No fact is better attested than this, hence the many who have suffered from the irrational practice of leeching. What can be clearer than that if the blood is taken from the capillary vessels which nourish the peripheral branches of the 'nerves' upon which the sight depends, that the nerves being thus robbed, should rapidly pass into a state of atrophy and die for the want of nourishment? Starve the body, and it dies. Starve the nerves, and they also die. The difference is simply one of degree, the principle is the same in both.

For *Eye Ointments* see "Index."

Chapter XII.

CHRONIC DISEASE, IMPAIRED NUTRITION, VITIATION AND REDUCTION OF THE CIRCULATION, &c.

REMARKS.

"EVERY RATIONAL PHYSICIAN MUST FEEL IN ITS FULL FORCE THE ABSURDITY OF EXPECTING TO ACCOUNT FOR THE PHENOMENON OF LIFE UPON PRINCIPLES DEDUCED FROM THE ANALOGIES OF DEAD MATTER, AND WE THEREFORE FIND THAT THE MOST INTELLIGENT PHYSIOLOGISTS OF MODERN TIMES HAVE BEEN ANXIOUS TO DISCOURAGE THE ATTEMPT, AND TO DEPRECATE ITS FOLLY. SIR GILBERT BLANE IN HIS LUMINOUS WORK ON MEDICAL LOGIC, WHEN SPEAKING OF THE DIFFERENT THEORIES OF DIGESTION, TELLS US THAT DR. WILLIAM HUNTER, WHOSE PECULIAR SAGACITY AND PRECISION OF MIND DETECTED AT A GLANCE THE HOLLOWNESS OF SUCH DELUSIVE HYPOTHESES, AND SAW THE DANGER WHICH THEORISTS RUN IN TRUSTING THEMSELVES ON SUCH SLIPPERY GROUND, EXPRESSED HIMSELF IN HIS PUBLIC LECTURES WITH SUCH SOLIDITY OF JUDGMENT, COMBINED WITH FACETIOUSNESS OF EXPRESSION, WHICH RENDERED HIM UNPARALLELED AS A PUBLIC TEACHER. 'GENTLEMEN,' SAID HE, 'PHYSIOLOGISTS WILL HAVE IT THAT THE STOMACH IS A MILL, OTHERS THAT IT IS A STEWPAN, BUT IN MY VIEW OF THE MATTER IT IS NEITHER A MILL, A FERMENTING VAT, NOR A STEWPAN, BUT A STOMACH, GENTLEMEN. A STOMACH.' WHAT CAN ILLUSTRATE IN A MORE STRIKING MANNER THE SINGULAR POWERS OF GASTRIC CHEMISTRY THAN THE FACT OF THE SHORTNESS OF TIME IN WHICH THE ALIMENT BECOMES ACID IN DEPRAVED DIGESTION? A SERIES OF CHANGES IS THUS PRODUCED IN A FEW HOURS WHICH WOULD REQUIRE IN THE LABORATORY AS MANY WEEKS."*

The definition of the word "chronic," in contradistinction to that of "acute," is generally well understood. 'Acute,' *quick*, *sharp*, attended with pain, increase of and irregular circulation; termination regular and within a given time. 'Chronic,' long standing, uncertain, durable, gradual, decrease of vitality, constant wasting, &c. Now it may seem extravagant to those of our profession who have hitherto looked upon every bodily disarrangement as a distinct entity,

* Dr. Paris's "Application and Misapplication of Chemical Science."

and been taught to treat them as such, to be told that "disease is a unit," or in other words, that all the different types or forms of 'disease' that ever have been, are, or ever can be, have but one immediate cause, that they originate and depend upon the blood, as life itself does, and that however much the treatment may vary, there can be but one object to keep in view, which is to restore it to its original healthful condition. We may not be able to see this, nor care to admit it, from mere abstract reasoning; experience, however, cannot fail to convince us. Suppose, for instance, that twenty, thirty, or forty men and women, suffering from as many different forms of disease, originating in and continued from excess of labour and physical exhaustion, leave the circumstances and locality altogether, get away into the country, where pure air, exercise, recreation, and all the advantages of health are at their command, or that they make a voyage across the Atlantic and back in a good sound ship, well supplied with the necessary conditions; presuming that six months had been passed by all these poor, chronic, spiritless victims, to an imperfect and vicious social system; do we require to be told that, as the same uniform injurious causes (from the peculiar idiosyncracies of constitution belonging to each), produced in them different forms of disease, that the other 'uniform' health creating, or more favourable causes restored them again? The immediate cause of their suffering was the gradual but constant deterioration of the blood from impure air and exhaustion by day, bad ventilation by night, and want of attention to the ordinary requirements of life; and the 'immediate' but 'gradual' cause of their restoration was the full and complete change of old habits, and a proper and constant supply of the conditions upon which it depended. Do we need to be told that it was the more favourable circumstances that gave the recuperative bias to the system, and that the blood in either case was equally the cause of their disease and cure? Until the time of PRIESSNITZ, the founder of Hydropathy, the best of us knew but little of the value of water as a curative agent, and until we had acquired a knowledge of change of air and scenery, through steam locomotion, excursion trains, &c., we knew just as little of their value. Of dietetics, as the promoters, sustainers, and continuers of life, few of us have scarcely yet thought. We eat, drink, work, and sleep,—as it regards the science of the subject, however, it is all a dead letter. Our lives in fact are little else than so many accidents.

All forms of disease, whether "acute" or "chronic," it will be thus seen, depend upon the blood, and the success of the physician rests upon his knowledge of this one fact, and the means at his command to supply the requirements of whatever cases come under him; and he that is without this has no chart or magnet to guide him in his profession, hence the continuous shipwreck and loss of life which he makes of those entrusted to his care. It is useless to disguise the truth, for the doubts, divisions, discord, and general dissatisfaction so universally felt, are the best proofs we can give of the deficiences named.

The cure of disease depends upon the knowledge and application of correct principles, and these must be worked out in every case uniformly, or we can never correctly calculate upon results.* Is it a disease of the bone, ulcer of the leg, fistulous opening in the perinæum, exostosis or osseous out-growth, scirrhus of the liver, epistaxis, hœmoptysis, eczema, consumption, or any other form of disturbance? It matters nothing; the cause is in the blood, and can be removed only through its agency. It is in vain that we blister, plaster, vesicate, cauterise, cut, medicate, bathe, change employment, seek fresh scenes, eat, drink, rest, exercise, or do anything appertaining to the body, except we do it through the blood. It is in fact through it, and it alone, that the germ of life is generated, through it that it is transmitted,

* We have said that our "lives are mere accidents," and such must necessarily be the case where the knowledge of the laws of health are unknown, and the conditions overlooked, or not applied. In the simple or aboriginal condition of humanity it is not only possible but probable that men may enjoy health without knowledge, but in a civilized state the problem of health must be worked out or we cannot hope to realize it, nor ought we indeed to expect it. The astute old Dr. Johnson, speaking of *health*, *disease*, and *death*, says: "It was a principle among the ancients that 'acute diseases' are from Heaven and 'chronic' from ourselves; the dart indeed of death falls from heaven, but we poison it by our own misconduct. To die is the fate of man, but to die with lingering anguish is generally his folly * * * The dance of spirits, the bound of vigour, readiness of enterprise, and defiance of fatigue, are reserved for him that braces his nerves and hardens his fibres, that keeps his limbs pliant with motion, and by frequent exposure fortifies his frame against the common accidents of cold and heat." Locke, in his masterly work on "Education," "urges the necessity of a trade upon men of all ranks and professions, that when the mind is weary with its proper task, it may be relaxed by attention to some mechanical operation." It is the proper exercise of mind and body that gives to us the full advantages of life, and he that would enjoy health must regulate the supply agreeably with the demands of both. Excesses of every kind are alike injurious; and if we would prolong life, and avoid disease, we should be careful to guard against them.

through it that conception takes place, through it that gestation and fœtal life begin and end, through it that parturition is effected and our separate existence secured, through it that we grow and pass into and out of the varied stages of our being, through it that we become diseased, through it that we recover our health, and through it that we die. Without it there could be neither life, health, disease, nor death, seeing that, in so far as it relates to the body, it is the one great pabulum of existence, the *alpha* and *omega*—first and last.

CHRONIC DISEASE OF THE BRONCHIAL TUBES.

Description.—If the student will turn to *Acute Bronchitis*, and read from page 287 to 293, he will better understand what we shall further advance in relation to this form of the disease. Every part of the throat is equally liable to "chronic" as to "acute" disarrangement, the difference being that the former generally succeeds the latter, and results principally from a low state of vitality, hereditary or other cause or causes of an obscure character, or from the improper treatment of the disease in its 'acute' form.

Any part of the air passages may be implicated from the upper portion of the *larynx* to the terminal branches of the *bronchial tubes*, including the *vocal chords*, *epiglottis*, and the whole of the mucous membrane. We point this out with the object of exposing the absurdity of treating every part that may happen to be most prominently affected, as if it was a distinct entity, instead of considering it as related, belonging to, and originating, in one and the same general cause, and treating it upon one general principle. If we understand disease in this light, and treat it with due regard to the locality in which it is seated, the nomenclature or name, as a means of distinguishing the part affected, will be of great advantage to us; but if we do not understand it in this light, everything relating to *cause*, *treatment*, and *cure*, will be little better than haphazard.

Accepting this as the true basis upon which to build our success and reputation as "healers" of the sick, or "physicians," we shall consider chronic disease of the throat as a whole. If the part affected is confined to the *larynx*, we know it as Chronic disease of the *larynx* (see pages from 303 to 310). If it is seated in the *trachea*, we know it as Chronic disease of the *trachea* (see pages 312 to 314). If it is

seated in the *epiglottis*, we know it as CHRONIC disease of the *epiglottis*. If it is seated in the *bronchi*, we know it as CHRONIC disease of the *bronchial tubes*, or *Chronic Bronchitis*. If it is seated in the air passages which enter into the substance of the lungs, we know it as ASTHMA, *Humoral Asthma* (moist); *Congestive Asthma* (dry); *Spasmodic Asthma* (sudden paroxysms of cough); *Hay Asthma* (peculiar to some persons during the hay season); *Hysteric Asthma* (connected with hysteria); GRINDERS' Asthma (common to knife and fork grinders); MILLERS' Asthma (common to millers); MINERS' Asthma (common to miners, particularly to those who work in copper and lead mines). If the *pleura* is the seat of the disease, we know it as CHRONIC disease of the *pleura*, and if it adheres or has become united through inflammation to the intercostal pleura (*Pleura Costalis*, or part that covers the inner portion of the chest), we know it as ADHESION of the *pleura*. In this way it will be seen the different phases and types of disease are known. Any part in a fixed abnormal state, we know simply by the prefix "Chronic;" if ulcerated, by the prefix "ulcer" (wound secreting *pus*, or any kind of discharge), of which there are several kinds.

Abscesses are also distinguished after the same manner. Any *gathering* or *boil* containing pus or matter, therefore, we know as "abscess" in or of the particular organ or part. It may be 'abscess' of the *brain*, *bone*, *liver*, *kidneys*, *pharynx*, *nose*, *salivary glands*, *breast*, *tongue*, *throat*, or any other part; but wherever it is, it is known as "abscess" (*pus* or *matter* confined or circumscribed within certain bounds beneath the skin).

To the student desirous of obtaining a knowledge of the science of medicine, the study in connection with that of human life will yield an amount of pleasure incalculable. He will see it as a *unit*, understand it as a 'unit,' and work it out as 'unit,' whether it relate to chronic or acute *disease*. If called to deal with 'life' and 'health,' he will know that, to retain, sustain, and transmit them, the conditions must be applied. He will also know that all primary disturbance is in the blood; and that whatever form of disease may be set up, however remote or different the external causes may be, that the immediate or exciting cause is there. It may be from external causes, which the senses may with certainty recognise; or from internal or more complicated causes, arising from the subtle action of the sensory nerves upon the vascular system, and the solids

and fluids which make up the body. In either case the end to keep in view is the blood; for through it the nervous system is sustained and nourished, and equally so the motor nerves and all the organs or parts which may have lost their natural continuity and perfect union with the whole.

It is little that need be said of the 'bronchi' more than will be found in pages from 287 to 293; from the remarks now made, however, the whole subject of *chronic* disease may be readily understood, and the different forms as they arise, treated with the knowledge acquired upon the same general principles.

Causes.—Predisposition from acute attacks, advancing years, working in ill-ventilated factories, or at any employment where mineral particles, or dust of any kind, are carried into the bronchial tubes, improper treatment of acute disease, continual drafts of cold air, wet feet, and exposure to sudden atmospheric changes, or as the sequelæ of some early or severe attack.

Diagnosis.—Difficult respiration or shortness of breath, particularly in thick hazy weather; cough, regular or irregular, spasmodic, or otherwise, according to the condition, progress of the disease, and constitution of the patient. In the early stages, when the weather is fine, respiration improves, the cough declines, and in some cases disappears; as the winter returns, however, old difficulties generally reappear with renewed strength. "My winter cough," in such cases, is the common remark. If the expectoration is free there is relief for the time, but not for long; for the chronic character of the disease keeps up a constant irritation, which gradually undermines the system. In some, a constant cough, without any expectoration, becomes so exceedingly troublesome that the patient can scarcely obtain any sleep, and that only by short broken catches, and as the disease advances the debility increases, until the system is fairly exhausted or worn out.

Treatment.—*Hygiene.*—See page 290.

Treatment.—*Medicine.*—See pages 292 and 293, and follow the directions out. We are to remember that the blood cannot be arterialised, or fitted to sustain and nourish the body except the bron-

chial tubes are in a condition to carry the oxygen through the whole substance of the lungs, and that to do this, whilst all exciting causes must be avoided, it will be necessary to supply, by every artificial means, whatever may be naturally deficient. The food should be light and nourishing, and the temperature mild and regular,—the air passages or bronchial tubes free from accumulating mucous; and if the weather is mild and the atmosphere clear, keep as much as possible out of doors, taking care to avoid all sudden changes.

We have seen the uses of *emetics*, *medicated baths*, and the *Patent Pulmonary Lozenges*, in pages 292 and 293; and in introducing the subject of Chronic Bronchitis, as the first in the series of 'chronic' diseases which we are about to treat, the student will understand that we do this with the object of laying down a base upon which we may stand with safety and work the problem of disease out.

The number of respirations, and the quantity of air inspired, vary in proportion to the capacity and power of the lungs. During a year about 9,000,000 respirations occur, consuming 100,000 cubic feet of air, and arterializing 3,500 tons of blood. If to sustain a man or woman in health it is necessary to consume this quantity, it will be readily understood that in proportion to the quantity unconsumed the strength must be diminished. The lungs fill up the cavity of the chest, and are composed of cells, into which the bronchial tubes pass, and it is calculated that there are no less than 600,000,000 of these cells in the lungs of a healthy man; and although the disease is rarely cured, the many years that a man or woman may live under careful treatment, and even attend their daily avocations, is truly astonishing.

For formulas, baths, &c., see "Appendix" and "Index."

CHRONIC DISEASE OF THE LARYNX.

Description.—Having already treated *Laryngitis* in its *acute* and *chronic* forms (see pages 303 to 310), it is scarcely possible for any student who has carefully read and reflected to misunderstand it. Any part of the *larynx* may be implicated equally with the whole of the air passages; and as it can have no separate or independent existence, it must be treated upon general principles. As far as regards the inflammatory condition, therefore, not another word need be said;

but there are other states into which the disease may pass, such as thickening warty excrescences, and ulceration, which may extend to the vocal chords, or even to the whole of the *fauces* and *palate*, and there are few practitioners of any experience but know the serious nature of such cases, and the difficulty of curing them.

CAUSES.—Anything that may injure the parts locally, obstruct the capillary circulation, and induce inflammation; the application of caustics, particularly nitrate of silver; syphilitic disease, mercurial salivation, improper treatment of fever, or any specific blood disease.

DIAGNOSIS.—See page 309.

TREATMENT.—*Hygiene.*—See "Index."

TREATMENT.—*Medicine.*—See pages 307 to 310. Read carefully, consider the condition of the parts, the causes from whence the disease originated, and the character of your patient generally. If there is ulceration, which may be known from the husky state of the voice, purulent expectoration, and also from examination, the indication of treatment throughout must be purely restorative—how to prevent further disorganization, arrest the progress of the disease, and enable the blood to restore the wasted tissues. If the mischief can be reached by direct application, it may be treated as any other ordinary ulcer, that is to say, it should be cleansed with the following simple astringent gargle—

℞ Polygonum Bistorta (Bistort or Snake Root, dry, crushed) ..... Two ounces.
Sanguinaria (Tincture of) ..... One ounce.

Prepare as follows:—Put the crushed roots into three pints of boiling water, and gently simmer in a covered pan down to a pint; strain, add the 'tincture,' and use three or four times a day.

In addition to this, if the *fauces*, *epiglottis*, *uvula*, or *palate* are affected, prescribe—

℞ Sanguinaria (Tincture of) ..... Half ounce.
Myrrh (Tincture of, simple) ..... Half ounce.

Apply to the parts with a small brush, or bit of sponge fastened tightly to the end of a stick, three or four times daily.

The purpose of this is to stimulate the capillaries, and act as an antiseptic.

In carrying the case through, it will be satisfactory to know that whether the actual cause can be traced or not, it in no way interferes with the treatment. We name this because the causes of 'chronic disease' are often obscure, and bid defiance to every effort that we may make to arrive at anything satisfactory concerning them. It is enough for us to know that the *larynx* is ulcerated, with or without the parts surrounding it; or that any one of the parts may be so, to warrant us in following the same treatment. The ulceration must be arrested, the parts, so far as it is possible, restored; and to effect this the blood must be put into a condition to do it. See *Lupus;* 'diagnosis' and 'treatment,' pages 252-3-4, and prescribe the same medicine; excepting, of course, the "Decoction of Male Fern Roots," and "Soothing Ointment." Boiled milk and bread may be used with advantage for breakfast, mornings; and if a few young shoots of "Fern" are boiled in the milk it will add to its medicinal effect.

In dealing with warty excrescences, tumours, fungus growths, and other affections, it will be necessary to resort to surgical as well as medical treatment; and where such cases occur, it may be necessary to call in other aid, the propriety of which the medical attendant, patient, and friends will best understand.

See "Index" for "Formulas," "Convalescent Drinks," "Baths," "Diet," &c.; and never forget that in proportion as the patient acquires strength, and can endure the "Medicated Vapour Bath," or ordinary "Vapour, or Spirit Bath," that we may give them once, twice, or thrice weekly, in proportion to strength.

CHRONIC DISEASE OF THE TRACHEA.

Description.—Read *Chronic Disease of the Bronchial Tubes*, pages 359 to 362, and *Trachitis*, pages 312 to 314; consider the causes, and bear in mind that the *trachea* is nothing more than the prolongation of the same part; that the *thyroid cartilage*, connecting and forming a part of both, lies below the one and above the other; and that the treatment must be governed by the same general principles throughout.

Causes.—Cold, inflammation, improper treatment of acute disease, fevers, mercurial salivation, working in ill-ventilated factories, as a *sequelæ* of fever, low state of vitality, strumous or syphilitic diathsis from transmission, mineral acids, corrosive poisons, or anything that has a specific or poisonous effect upon the blood.

Diagnosis.—Hoarseness, difficulty of breathing, spasmodic cough, particularly in females; expectoration, if the parts are ulcerated, of purulent pus, sometimes streaked with blood; constriction or tightness, wheezing, &c. We cannot well separate the *trachea* from the *larynx* and *bronchia*, for in proportion as one part when diseased encroaches upon another, the diagnosis assumes more or less a mixed character; hence it is difficult, under such circumstances, to correctly decide upon the exact locality of the disease. We know it so long as it is confined to the *larynx*, but cannot settle the question with such certainty when dealing with the *trachea;* hence a degree of latitude or margin must be allowed in this as in all other forms of chronic disease.

Treatment.—*Hygiene.*—See "Index."

Treatment.—*Medicine.*—It will be readily understood that the disease (from its invasion at the entrance of the *larynx)* must increase in intensity as it advances; and that whether the first attack be above the *thyroid cartilage*, within, or below it, that the danger becomes greater as it descends into the deeper branches or air cells. No great amount of pathological knowledge is necessary to enable us to understand this. We are presuming to be treating it whilst confined to the *trachea*, however, and to have nothing to do with it in its deeper-seated character, in the sense, for instance, in which we have treated *Chronic Disease of the Bronchial Tubes.* In its more advanced stages, this becomes *Asthma, Bronchial Asthma, Spasmodic Asthma*, &c., &c.; and as in these cases, from the want of power to oxidise the blood the body gradually wastes and dies; in the more benign or localised condition of a similar morbid character, the danger must be considered in proportion to the extent of the part implicated. We are bound to arrest the progress of the disease, therefore, or there can be no hope for the patient; and to raise or build the body up by renewing the blood is the one great secret. If there is power sufficient

in the system, we may begin with the "Medicated Vapour Bath," and follow it with an "Emetic;" if not, we must endeavour to bring the patient up by a more gentle process. "Chronic diseases," we have said, require "chronic treatment." This is true to the letter, and must not be overlooked: nor must we neglect to consider the state of the *liver*, *stomach*, *kidneys*, nor any single organ upon which the restoration of the part affected, and the body as a whole, depend. The theory which we now lay down is that upon which we have always acted, and to it we attribute the whole of our success in practice. As an alterative medicine prescribe—

℞ Stillingin ..... Ten grains.
Podophyllin ..... Four grains.
Ginger (powder, best) ..... Twenty-eight grains.

Mix, divide into twenty-one powders, of which take three daily.

Use the "Pulmonary Lozenges" freely, beginning with three or four daily, increasing the number as the stomach can bear them. As a medicine for improving and renewing the blood, prescribe—

℞ Sanicula Officinalis (Wood Sanicle, dry herb) ... One ounce.
Prunella Vulgaris (Self-heal, dry herb) ..... One ounce.
Composition Powder..... One drachm.

Infuse the whole in three pints of soft spring, rain, or distilled water; cover, and let it stand by the fire one hour; after which let it cool gradually; strain, express, add four ounces of lump sugar, and take a wineglassful four times a day.

Keep the whole of the air passages free from accumulated mucous; take no tea nor coffee, but the "Convalescent Powder" as prepared and recommended in "Appendix" (see "Index").

ASTHMA.

Description.—This is a chronic disease of the air passages, presumed to differ from *Chronic Bronchitis*, as it doubtless does in some respects; the difference, however, cannot always be distinguished, hence the term *Bronchial Asthma* has been introduced by way of satisfying and adjusting the nice distinction that marks the boundary line. The name is from the *Greek*, and literally means to "breathe heavily, broken-winded, difficulty of breathing, recurring in paroxysms, independent of any disorganization." This definition is suffi-

cient to distinguish it from ulceration, abscess, tubercle, &c., &c. It assumes a variety of types, and no better evidence can be given of the influence of external causes in the creation and transmission of disease generally. The fashions, habits, customs, professions, and institutions of society all do their parts; hence *Asthma* puts on different forms, and is known by the peculiarities belonging to each. (See *Chronic Disease of the Bronchial Tubes*, pages 359 to 362.)

Causes.—To speak definitely or satisfactorily upon the whole of these is altogether impossible. How it is that the disease developes itself at certain periods we know not, beyond the fact that it does so. It is generally connected with advancing years, and doubtless results, in many cases, from hereditary transmission, from cold, inflammation, or fever contracted in early life, which left behind the germ from which it was developed in later years. There is no difficulty in accounting for the forms of *Asthma* that grow out of certain professions, nor for the hereditary causes that may reproduce them; when this point is settled, however, there remain still many others to puzzle us. The Cornish miner generally dies early; and although the physical strength of his children is equal to that of others, there can be no doubt regarding the consequences that follow after they arrive at a certain age. Young Cornish men and women, descended from miners, are generally pictures of good health; in the whole of them, however, or with possibly very few exceptions, respiratory disease has been transmitted which, although not always reflected in the same form, (particularly in the daughter,) generally sets up in later life some particular form of heart disease, which is re-transmitted to their descendants. Time may wear the tendency out, but a total or complete change from the unfavourable to favourable circumstances must be applied; and from three to four generations will have to pass before restoration to healthy life can be accomplished. The same law holds good in all other professions that injuriously affect the respiratory organs, particularly with the "Grinders" of Sheffield, who also die early. It also holds good with "Colliers," and, indeed, with all who are continually engaged in a constant war with nature, or in following unwholesome employments.

Diagnosis.—Difficult respiration, particularly when walking or performing any kind of labour, where the muscular action of the

pectoral and *abdominal* muscles is requisite; cough more or less constant, with free expectoration, if the disease is *Humoral Asthma;* and without expectoration, (except it may be a little tough or frothy mucous, now and then tinged with blood, after a great deal of struggling), if it is *Congestive Asthma.* In *Spasmodic Asthma* the attacks come on at intervals, suddenly, and often with exteme violence, attended with a suffocating feeling, as if it was impossible to live through them, arising from the inflammatory and contracted state of the cartilages and membranes which compose and unite the *larynx*, *trachea*, and *bronchial tubes.* As regards *Hay Asthma*, *Millers' Asthma*, *Grinders' Asthma*, *Miners' Asthma*, *Hysteric Asthma*, or by whatever name we may please to call the disarrangement, the diagnosis is arrived at from a knowledge of the causes, as well as from the actual condition of the patient. As the disease advances the danger increases; sleepless nights and wearisome days follow each other, until the sufferer, wasted and worn out, passes from life, propped with pillows in an easy chair, or if in bed supported or equally propped up, to prevent the suffocation and death which at length come to his relief.

TREATMENT.—*Hygiene.*—Cold easterly winds must be carefully guarded against, and currents of cold air, no matter from what point of the compass they blow. An even, moderate temperature, with free ventilation, and a good supply of rarified or warm air. This is of the very greatest importance, and care should be taken to maintain or keep it up. Observe how easy the 'asthmatic' patient appears when the atmosphere is clear and temperate. He sits surrounded with the beautiful sunshine, and his face is lit up with a smile. He *can breathe again*, and silently offers up his thanks for relief. Trifle this, it may be, to those in the enjoyment of health, but to him it is a joy and relief, estimated by feelings of a different character. The world has no treasure, no pleasure, nor any happiness that can be compared to it. He forgets for a while his infirmity, and is "himself again."

TREATMENT.—*Medicine.*—It is rarely that *Asthma* is curable, particularly in patients advanced in years: the relief that can be obtained, however, and the length of time a man or woman may live where care and attention are applied, surpasses anything that can be believed or understood by those who are ignorant of the power of simple

remedies, and of medicine when worked out as a science,. In the young, who in other respects appear well, and where it is uncomplicated with disease of the heart, *Asthma* is amenable to medicine, and readily yields where the conditions are in other respects favourable. What is the age of the patient? What the condition of the system? what the state of the disease, and how is he situated? These questions must be considered and settled the first thing. Do nothing without thought, nor in the dark. Here is, comparatively speaking, a young woman or young man, say about thirty, apparently moderately well in all respects, except that he or she is troubled more or less with constant cough, tightness on the chest, and difficulty of breathing. A medical man, with decent abilities and moderate experience, has succeeded in relieving or curing one, two, or three cases equally as bad or worse, and what is to prevent him, he asks himself, from curing this? He pursues the same treatment that proved so beneficial in the other cases, but fails; he changes the treatment and tries something else, still it fails; again and again he is defeated, and blames medicine for all his difficulties. The patient is wearied and in despair, when a kind friend, having heard of the 'wonderful cures' performed by some humble medical botanist, recommends him. *Question:*—Patient—"Can you cure me of my cough and difficulty of breathing?" *Answer:*—Medical Botanist—"Yes, without doubt!" He too tries, and tries again, but cannot do it; he has cured others, why does he fail now? The answer is, because the disease, which is hereditary, has been transmitted with the germ, and forms a part of the vital force, the *subtle essence*, whatever it is, which we call life, but of which we know nothing beyond the conditions through which it is sustained and continued. That 'hereditary' disease can be cured by human agency is altogether impossible: it can be kept in abeyance, however, and the patient, in the majority of cases, be secured from immediate danger; but time, nature, favourable circumstances, the re-transmission of improved germinal life, are the only renewing forces, and these, under the direction of science, the physician may make available for effecting his purpose. He knows what art can do, and knowing this, is careful to guard against promises which bring himself and profession into disrepute; a knowledge absolutely necessary, and of the greatest importance, not only to correctly diagnose a disease, but to predicate and form anything like an accurate prognosis, and deter-

mine the chances for or against whatever cases may come under his care.

In all forms of *Asthma*, particularly where there is freedom from disease of the heart, and where it is of a humid character, prescribe the "Medicated Foot Bath" for about ten minutes at bed-time, after which—

℞ Lobelia (herb and seed, in powder, equal parts)... One drachm.
Composition Powder ..... Half drachm.

Infuse in a pint of boiling water; let it stand, covered, for about twenty minutes; strain, sweeten, and drink warm, by the fire or in bed, in wineglassful doses, every ten minutes, until the whole is taken.

There is no case where the "Vapour or Spirit Bath" may not be prescribed with advantage. Two or three of these weekly, just before bed-time, and an "Emetic" every second night, or every night for the first week, if it can be borne, work wonders.

The general health must be considered at the same time, and whatever is wrong in other respects, attended to.

It is understood that we are now dealing with *Humid Asthma*, but the treatment is equally applicable to all other cases where there is power in the system. We know that the air passages which ramify throughout the chest, including the substance of the lungs, are more or less in a state of atrophy in *Congestive*, *Hysteric*, and *Spasmodic Asthma;* and that *Grinders'*, *Millers' and Miners' Asthma* are more or less in the same condition. For the whole of these the "Emetic" and "Vapour Bath" are equally beneficial, not even excepting *Congestive* or *Dry Asthma*, unless it is in a highly inflamed condition, in which case the "General" and "Local Medicated Vapour Bath" (see "Index") should be used freely, as they should in all other cases where the disease is complicated with inflammation. The "Patent Pulmonary Lozenges" are truly beautiful remedy, and, where these can be had, should be used freely. The blood must be put into a condition to nourish the diseased tissues, and in order to accomplish this the effete accumulations must be carried out of the body through the *skin*, *lungs*, *kidneys*, and *excretory outlets* generally, and the system renewed, so far as possible, by the application of all theconditions that can be made available for the purpose. To assist expectoration during the day and relieve the breathing, prescribe—

℞ Compound Lobelia Tincture ..... One ounce.

Put a half teaspoonful into a teacup, add an equal quantity of hot water, sweeten, and take every two or three hours.

The same may also be prescribed as an "Emetic," as follows:—at any time, in change with the "Formula" already given; or in its stead, if preferred.

℞ Eupatorium Perfoliatum (Boneset Herb) ..... Half ounce.

Infuse in a full half pint of boiling water, let it stand, covered, for about twenty minutes, after which strain, express, add a tablespoonful of the above 'tincture,' and give, unsweetened, in tablespoonful doses every ten minutes until the whole is taken.

As an ordinary strengthening medicine prescribe—

℞ Convalescent Powder ..... One ounce.
Sugar (Lump)..... Half pound.

Infuse in a quart of boiling water; mix well; let it stand until cold; after which strain the liquid off, and take a wineglassful three or four times a day.

In *Asthma*, as in other chronic diseases, the complications must be attended to, and the great end to keep in view is the restoration of the system generally; hence the *bowels*, *liver*, *kidneys*, and every organ and part must have constant care.

In extreme cases where the constriction of the parts, age, advancing years, and the treatment recommended fail, relief may be often obtained as follows:—

℞ Stramonium (Thorn Apple, herb, dry)..... Quarter ounce.
Tussilago Farfara (Coltsfoot, herb, dry)..... Half ounce.

Cut the leaves up small, mix, take sufficient to fill a moderately large clean pipe, and smoke as ordinary tobacco: or the leaves prepared as the ordinary cigar may be used with equal advantage.

It should not be used too freely, however, as it is not at all times safe, particularly where there is great nervous prostration; nor is it necessary except in *Spasmodic Asthma*. We name *Stramonium*, because we have known it afford relief during very severe attacks, and from the fact that it has become, of late, a fashionable remedy. We have no faith in it as a curative agent, however, and are satisfied that its power in relaxing the constriction is due to its narcotic influence, rather than to any other cause.

The student will bear in mind that *Asthma*, although distinct in many of its characters from other diseases of the chest, nevertheless

may be complicated with any one, or all of them; and that to understand and treat it with anything like success, the body must be considered and treated as a whole.

CHRONIC DISEASE OF THE PLEURA.

Description.—See *Pleurisy*, pages 293 to 296, and after considering it in its "acute" form, we shall better understand why the *pleura* is liable to become chronically diseased. We have seen its purpose, and know that it not only envelopes and lines the cavity of the chest, but that it is a 'closed sac,' within which the lungs perform their functions—that it is reflected over the whole chest, and acts as a lining for the intercostal muscles, thus performing a double office, within which the ribs and lungs play, and freely rise and fall with every respiration. In health we know nothing of pain, nor of the inconveniences and suffering that arise from disease, and are in the very happy condition of the man who never knew what corns were. It is they who have 'corns' that know where the 'shoe pinches,' and the same may be said of *Pleurisy*.

In treating acute inflammatory diseases, we have been particular throughout to impress upon the mind the importance of attending to the circulation. "Carry the blood through the obstructed vessels, and equalise the circulation," we have said over and over again, and you avoid future mischief. What if it has not been done, however? Aye, that is the question! Why have we *effusion*, *thickening* of the *pleura*, *adhesion* of the *pleura*, *abscess* of the *pleura*, *dropsy* of the *pleura* (Hydrothorax), *tumours* of the *pleura*, malignant and non-malignant, and all the host of difficulties that so often arise? The answer is, because the blood having become diseased, or ceased to convey its vital or life-renewing forces to the disarranged part, the whole of the morbid conditions named have grown out of the deficiency.

But "chronic disease," it may be said, often results from a low state of vitality, or from hereditary transmission, and not at all times from acute attacks, or any positively known cause. This we are prepared to admit; but still the fact remains, from whatever source the disease originated.

Causes.—Low condition of the system, hereditary transmission,

as a sequelæ from acute inflammation; injuries, accidental or otherwise; working in ill-ventilated factories, impure ventilation generally, or from whatever tends to corrupt the quality of the blood and reduce the volume or quantity necessary to maintain healthy life.

Diagnosis.—What is the form of the disease is the first consideration? If it is simply "Adhesion of the Pleura" there is constant pain, more or less, on the right or left side, or both, with difficulty of breathing, particularly in cold damp weather; and if the adhesion is complicated, with effusion of lymph, the pains and difficulty of breathing will be more severe: and if with *empyema*, hectic fever, and a quick hard pulse are its concomitants. Presuming that the lymph is not absorbed and the disease continues to advance, it cannot fail to pass into *Hydrothorax* (dropsy), or, failing in this, into ulceration, in which case the lungs most likely will be implicated, and from the absorption of the pus into the the circulation, the intestines and other parts can scarcely fail to suffer. These changes are marked by wasting of the system, debility, cough, *dyspnœa* (difficult breathing), expectoration of offensive matter or pus, at times tinged with blood, and enlargement of one or both sides. In severe cases, and where far advanced, the patient cannot lie down, but is obliged to be propped up with pillows, in order to get a little ease and prevent suffocation.

Treatment.—*Hygiene.*—See "Asthma," page 368.

Treatment.—*Medicine.*—If the disease is simply *Adhesion of the Pleura*, we shall understand that the part of the membrane which covers the intercostal spaces or ribs, is united to or grown to that part which covers the lungs. The *pleura*, we have said, is a closed sac, that is to say it has no opening, and may be said to resemble a "double night cap". Suppose we try the experiment. Here is a "double night cap," in order to fix this upon the head, we must first put one part into the other. In this way, if we cut it equally across the centre, it will make two night caps; but this would spoil our experiment; we therefore take one part, and push it up into the other; and it now forms the 'double,' instead of 'single cap.' We put it upon the head; and whilst one side only is in contact with the scalp, the other sides are in contact with each other, and in this way

they play or act freely. Presuming, however, that the side next the head adhered to it, as the *pleura* does to the ribs, and that the other side was glued to it, the double action would be spoilt, and each time we attempted to move the cap, we should find our difficulty out; or, presuming that lymph was effused within, or *pus*, from an abscess, or water, it is easy to see what the consequences would be, and the difficulties that must attend their removal.

In treating *Chronic disease of the Pleura*, we must understand the 'difficulties' connected with it, and be prepared to grapple with them. We must also understand when it may be cured and when it may not.

If the "adhesion" is completely established, that is to say, if the two sides of the *pleura* have become one, we must not hope to separate them. There is no immediate danger, however; and all we have to do is to sustain the general health, in order to avoid future consequences.

In dealing with effusion of lymph or accumulation of water, we must resort to active measures if any great good is to be done. It is no use trifling. We see what has been going on, and must arrest its further progress. Prescribe—

℞ Podophyllin ..... One grain.
Ginger in powder ..... Five grains.

Mix and give in a little hot water sweetened.

This should be followed with the "Medicated Vapour Bath" (see "Index"). The patient should then be put into a warm bed, a stone bottle of hot water applied to the feet, followed with the "Compound Lobelia Emetic" (see "Index"), and as soon as the stomach is vomited freely, prescribe—

℞ Glechoma Hederacia, (Ground Ivy, dry herb)..... Half ounce.
Archangelica Officinalis (Garden Angelica, herb dry) Half ounce.
Diuretic Powder..... One drachm.

Infuse in three pints of boiling water, cover, and let it stand twenty minutes, strain, sweeten with lump sugar, and give in wineglassful doses, as hot as they can be taken, until profuse perspiration arises. Keep it up for three or four hours, after which change the bed linen and night clothes, rub the skin dry, put on dry linen, and return to bed.

Sleep will now most likely follow, the patient having obtained the desired relief.

To carry the effused *lymph*, *serum*, or *pus* out of the system, and raise the patient above the level of the disease, must be the end sought, and we know no other treatment upon which reliance can be placed.

Nature is powerless to effect the object when the system is in the condition described, and whatever power remains must be utilised in proportion to the strength.

Presuming that relief has been obtained, it will be well to allow about eighty-four hours to pass before repeating the treatment; in the interim the system should be nourished well, not with food alone but with medicine. "Nourished with medicine!" How absurd, methinks we hear some of our professional friends say. What next? Aye! "What next?" Have we not said "Medicine is the sick man's food?" See *Chronic Disease of the Trachea*, and prescribe as there recommended, page 336; "Medicine for improving and renewing the blood."

The "Patent Pulmonary Lozenges" may also be used freely; and, after the deeper-seated symptoms are removed, the following may be prescribed—

℞ Eupatorin ..... Ten grains.
Hydrastin ..... Ten grains.
Leptandrin ..... Ten grains.

Mix, divide into twenty parts, and give one part three times a day.

Should it be necessary to act more freely on the bowels, prescribe—

℞ Compound Powder of Leptandrin ..... Two grains.

At any time.

If the disease does not yield to this treatment, which it rarely fails to do, unless the patient is so far debilitated that the system cannot react, then further efforts will be useless, and *paracentesis*, or tapping the chest, must be resorted to. As this is a surgical operation, however, and attended under the most favourable circumstances with some degree of danger, it will be unnecessary to describe it, inasmuch as in all such cases surgical aid should be called, in order that the responsibility may be equally shared.

CONSUMPTION.

Description.—The definition of this term is pretty generally understood to mean *wasting* of the body from decay of the lungs, although in reality 'decay' from any cause is literally its meaning, *marasmus*, *atrophy*, and *tabes*, equally represent "wasting" or "consumption," but not the form of disease now under consideration.

Tubercular disease, *Phthisis Pulmonalis*, and *Consumption*, are all convertible terms. The first represents the earlier stage of the disease, when the lungs are more or less studded with tubercular deposits, and not in an actual state of decay. The second represents it in its advancing stage, when it has passed into the suppurative form, and expectoration, cough, and debility, give evidence of continuous decay. The third represents the disease in its later stage, when vomica or abscess, free expectoration of purulent matter, sanies, and hectic fever, all mark its rapid advance and termination.

To know all this may give us no power in curing; nevertheless, seeing that the physician is expected to be up in every nicety, it is well not to overlook whatever can be made available for increasing our knowledge even in trifles. That consumption is a most distressing complaint we all know, and that it pays no respect to class or position is equally known; indeed, we may truly say that, whilst it leaves the beggar in the midst of his poverty, dirt, and rags, and the pauper in his dependency, it fastens itself upon the most independent, and callously strikes down the fairest and most beautiful. Of its frequency or average mortality in other countries we need say nothing; we acknowledge with grief, however, that it has greatly increased of late years in our own, for the returns of the Registrar-General show that during the last ten years consumption destroyed, in the metropolis alone, no less than one-fourth of all that died; whilst the general death-rate from the disease for the United Kingdom was nearly in the same ratio, which is indeed a serious reflection, and well deserves the attention of society equally with that of the profession. Dr. Copeland, who is no mean authority, says "*Pulmonary Phthisis* may be viewed as a vital blight, which in the animal kingdom, as in the vegetable, affects the circulating fluids by attacking the organs of assimilation and respiration." Of course this is nothing more than a theory, which is equally applicable to almost

every other form of disease: indeed, we might say, the lungs must be more or less implicated wherever the disarrangement or attack may be, and we may truly say, no disease that ever afflicted mankind in any age of the world has received more attention, been speculated upon more freely, or treated more diversely.

Hippocrates, the "father of medicine," as he is justly called, advises emetics, oxymel, milk diet, especially asses', goats', and mares' milk, warm from the animal; walking exercise, avoiding the extremes of heat and cold.

Celsus advises a long sea voyage and change of climate, milk diet, garlic, leeks, honey, plantain, hyssop, flour boiled with mutton suet, light wines, &c.

Pliny advises ammoniacum, a linctus of betony and honey, goats' fat in gruel, honey and water, rue, &c.

Galen advises vinegar, bleeding, emetics, friction, baths, opiates; milk from asses, cows, goats, and mares; grapes, honey, &c.

Avicenna advises camphor lozenges, milk diet, sugar of roses, &c.

Paracelsus advises crude antimony, crocus martis (oxyde or rust of iron), baths of sulphur and herbs.

Sydenham advises goats' milk, emulsions and opiates, horse and carriage exercise, elecampane and aniseed lozenges, syrup of capillaire, honey, &c.

Moreton advises bleeding, chalybeate waters, emetics, opiates, wormwood, nutmeg, calamus, &c.

Stahl advises nitre, bleeding, &c.; "asses' milk is only fit for asses," he says; and opiates, balsams, expectorants, myrrh, cinchona, &c., come in for an equal share of abuse.

Huxham advises blisters, diaphoretics, cathartics, anodynes, guiacum, cinchona, fumigations, &c.

Mead advises goats' milk, whey, fumigations, and change of climate.

Gregory advises mineral acids, cinchona, myrrh, emetics, &c.

Frank advises tonics, cinchona, milk, wine, exercise, and nutritious diet.

Fowler advises digitalis, &c.: and in this way, from the earliest times to the present, the treatment has been carried out agreeably with the fashion that prevailed for the time being. Few or none seemed to think it possible to remove the causes, hence the continua-

tion and increase of the disease. We have dealt with effects only and at haphazard, from the fact of our incapacity to grapple with first principles. That consumption is a specific disease of the blood is now universally admitted:—that it is contagious we also admit; and, of course, transmissible both exenthetically and enthetically; but that it can be understood, reached, removed, or even modified, we seem altogether to think it a fallacy to question.

Causes.—In all civilized countries that are known, or have been known, consumption in a greater or less degree has been also known. How or when it first began we have not the least conception; and all that we can do is to accept the evil as we find it, and by the application of correct principles, endeavour to prevent it by every possible means, or where we cannot prevent, modify, and do our best to cure it.

Dr Copeland, from whom we have already quoted, says: "At an early period, or even before the disease has fully developed itself, the blood is thinner and poorer than in health; the colourless globules are more or less abundant, and the red globules less numerous; the clot is somewhat smaller, its *crasis* (clot of blood, consisting of fibrin and red globules, *crassamentum*) less, and it sooner loses its cohesion. As the disease advances, and as the febrile action is established, the fibrin is somewhat increased, and this is more certainly the case if *hæmoptysis* or intercurrent inflammations of any of the pulmonary structures take place; the red globules are then diminished, although the albumen and fatty matter are not very materially changed in quantity. The alkaline salts are slightly deficient, and lime is somewhat in excess. It should not, however, be overlooked, that among the numerous analysis of the blood in *Phthisis*, there are very great differences in the quantity of fibrine, of albumen, and of fatty matter. *Probably the quantity of each of these is not so different as the quality, the intimate constitution, and vital relations.* In the last stage of the disease the blood appears still more watery, owing chiefly to the deficiency of red globules, and the colourless globules more numerous than in health. The greater abundance of colourless globules is probably owing to impaired assimilation and the metamorphosis of the red globules. The colourless globules in this, and indeed in the earlier stages of the disease, have been mistaken for pus globules, the existence of which in the circulation is doubtful, or at least not

satisfactorily demonstrated. The vital crasis, as well as the size of the clot, progressively diminishes. It does not appear that the *microscopic appearances* of the blood in *Phthisis* are different from those we state, or that the observations which have been made with the aid of this instrument have furnished any additional facts to those now adduced." We quote thus freely in order to show the great importance of a correct understanding of first 'principles.' The body is made from the blood, and whilst the "red globules" contain the health-giving and life-sustaining power, from the fact that they have been generated in health, maintained in health, and sustained by the continuous supply of oxygen through healthy lungs, 'maintained' and 'sustained' in their integrity by a proper supply of food, and all the conditions upon which vigorous health depends, that these same "red globules" become impaired in proportion as the 'health' essentials are wanting. The healing 'power' is essentially the same as the health-creating and sustaining 'power'; and whether it be applied to the maintenance of the body, 'healing' a wound, or curing a disease, the principle is the same. This is what we require to know. We also require to know that the subtle essence which we call 'life,' as transmitted with the germ, contains the qualities of the blood, and that if this be diseased the life must be diseased also; that it becomes a part of the integral principle of 'life,' and must as a sequence put on the same morbid characters as the growth of the body goes on. These facts once understood will remove much of the darkness which has hitherto surrounded the mystery of our being, and place us in a better condition to grapple with the question of "medical science" and the health-education of mankind. We know that 'consumption' destroys about the ninth part of the British population, and that about one-fifth of these are adults. We also know that hereditary or predisposing causes destroy one-fourth of the whole; and that bad sanitary and hygienic conditions, ignorance of the laws of health, misdirection of the human instincts, and vice in all its hideous deformity, destroy the remainder, whilst we ignorantly transmit and perpetuate the evil.

Of the immediate causes we may with certainty say, that wherever the *germ* is deficient of vital force, or the conditions of health have been wanting during its fœtal progress, the deficiency will generally be distinctly marked by some irregularity or peculiarity of growth, particularly in males, hence consumptive patients have very

often long necks, slender fingers, semicircular, or as we sometimes call them, "filbert" nails, narrow chests, projecting sternums, and contracted intercostal cartilages. These peculiarities are sometimes found in females, but not so often as in males; whilst others not 'found' in the latter are generally met with in the former, hence the sallow complexion, long eye lash, bright eye, clear skin, white teeth, with the pink-like tinge so common to the lips and cheeks: but all these should be considered as the effects of germinal disease (as indeed they are), rather than causes, and, wherever found, we may with good reason accept them as such. Setting aside the remote causes, however, what can we say of the more immediate, but that they are too numerous to name? Do we desire to be satisfied?—if so, let us consider a few of the disarrangements that may be produced from a simple catarrh, to one and all of the more complicated and severe acute diseases that may attack the body, or any organ or part of the chest at any time, whether it be the *larynx*, *trachea*, *bronchial tubes*, *pleura*, *lungs*, or as the sequelæ of typhus, scarlatina, *cynanche maligna*, working in stone, mines, mills, and ill-ventilated work-shops, and sleeping apartments, excess and mis-direction of the passions, insufficient and unwholesome food, intemperance, poisonous gases, syphilis, vaccination, confined air, sedentary employments, or anything and everything that deprives the blood of its oxygen, or sets up a morbid action in the system.

Diagnosis.—Cough, generally most troublesome in the morning, with expectoration of small knots of hard chalky or cheese-like substances; respiration slightly affected, easier fatigued, pains in the chest, flushing in the face, increase of pulsation, with chilly feeling in the extremities. These, which may be regarded as "premonitory symptoms," may be of long or short duration, according to the character of the attack or idiosyncracy of the patient. As the disease advances, however, the muscles waste and become flabby, the cough increases, the breathing is more difficult, and the expectoration is sometimes streaked with blood; and thus, as the days and nights pass, the disease puts on a more violent character. Hectic fever sets in, and the conviction of friends and observers become settled. It is "consumption"; and there is no longer any use in seeking to disguise it: the patient sweats at night, coughs more severely, and loses flesh faster; the expectoration is heavier, of a green cast, more

offensive, purulent, bloody, pus-like, and corrupt. In this way it passes on: the *vomica* from abscess, first in one lung only, is now in both. The waste is constant, and so rapid that even portions of the lungs are at times expectorated, until at length the poor sufferer dies from sheer exhaustion, or suffocated from inability to throw the accumulating matter off.

Treatment.—*Hygiene*—What is the condition of the patient, and what the true character of the disease? Is it in the first stage, second, or last? Is it hereditary, or the result of some positive cause that can be with certainty traced? Is it purely consumption, or is it complicated with disease of the heart, stomach, liver, intestines, or any other part? How is your patient situated? Is he dependent upon labour? If so, what is his employment or occupation? Can he leave his employment and adopt the necessary hygienic means which his case requires; or is he bound by circumstances to continue under the same unfavourable influences which have assisted to develope, or possibly cause the disease? These questions should all be settled by some means or other, if only for the satisfaction of one's self. Here is a *miner*, *stone-mason*, *miller*, *mechanic*, *compositor*, *knife or fork grinder*, *shoemaker*, *tailor*, *weaver*, &c., &c., in consumption, still able to work, but badly. You are consulted: examine your patient—know the only chance for him is to leave his employment—are satisfied the case is not hereditary, and that if he can do so, everything is in his favour. Can you leave your employment, you ask? No; it is my only means of living. Have you a family? Yes. How many? A wife and four children. Are you in a benefit society? No. Now, in such a case what can be done? You know the only chance for the man's life is in a total change of all the conditions that then surround him. You see what is going on; he does not. You know that the blood is diseased; that there can be no cure without its complete renovation: and that all and every means, whether of diet, air, exercise, change, medicine, &c., are requisite in order to effect this, but your patient cannot command these. What then? You can do no other than sustain and help him, medically and hygienically, with such poor conditions that he may have at his command: and do all you can, but know from the first there is no alternative but death. He dies, not absolutely from the disease, but from the circumstances that surround him, and out of which it originated.

Here is another case—a coal miner; he, too, is in "consumption." You trace his family and his antecedents, and know that the disease is not hereditary. What age are you? you ask. Forty, sir. Any family? Yes, sir. How many children? Five, sir. A wife? Yes, sir. Work in the pit? Yes, sir. For how many years? Thirty, sir. In a club? No, sir. Can you leave the pit? No, sir. In this, and all similar cases, the results must be the same. You may patch the system up for a time, but you cannot cure it.

Here is an hereditary case, however. A mother, a healthy-looking woman, brings a delicate boy (her son), about fourteen years of age, for consultation. We examine him and find a quick, small pulse, narrow chest, with abnormal sounds around the region of the heart, and general physical deficiency. Have you any more children? One. Boy or girl? Girl. Older or younger? Older. Is she healthy? Yes. Husband living? No. How long since he died? Ten years. Ill long? Two years. What did he die of? Cannot tell: one doctor said it was *Disease of the Heart;* another said it was from *Asthma;* and the last said it was from *Consumption.* "What profession was he? A mechanic. And what do you mean to make of this youth? Can scarcely tell. Would you like the sea, boy? Yes, sir, very much. Well, just sit in the next room for a few minutes while I speak to your kind good mother. And you do not you say, what your husband died of? No. Well! no matter; know it was the first doctor that told you it was a 'diseased heart,' I suppose? Yes. And the second that it was *Asthma?* Yes. And the third that it was *Consumption?* Yes. Well, they were all right; and there is no doubt but the *heart* was primarily affected, that the *bronchial tubes* followed, and that the *lungs*, sympathising with the general debility, became at last affected, and that *Consumption* was the final cause from which he died. But your son says he 'should like to go to sea,' have you any objection to his going? I would rather have him with me, if I could. How came he to fancy the sea? He has an uncle, his father's brother, in the merchant service, who is expected home shortly, and would take him with him. Let him go; the sea is the only place where he can live. Keep him on shore, his life will be of little value, but send him to sea and he will do very well; nor is it too much to say his father might have been alive now, had he been a sailor. It will be seen from

these remarks how much 'hygiene' has to do with *Consumption*, that whatever the cause of the disease, it is of the greatest importance, and that whether it is *hereditary* or *idiopathic*, *male* or *female*, *high* or *low*, *gentle* or *simple*, *Turk*, *Jew*, or *Infidel*, nature must ever accompany art, and that 'art' can only be effective so long as it is natural. Walking, exercise in the open air, in good dry hilly districts, with a gradual increase of distance in proportion to increasing strength,—legs were made to be used. Avoid hot air, warm climates, and equally so cold damp fogs; a thick misty climate should also be avoided, with everything that has a tendency to relax or chill the system. The indications of cure, so far as 'cure' is possible, are simple, and there is no difficulty in understanding them, whatever there may be in their application. Brace the system up, modify predisposing causes, remove the inflammatory tendency and re-create and increase the arterialized blood, in order that the wasting tissues may be recuperated. We have patients even now, that were given over to die years ago, who still attend their daily labour; and every year saved to the bread-winner of a family is of the very greatest importance. There can be no greater error than to send patients (the young particularly) into warm climates; with the aged the case is different; they do much better; indeed it is as unwise to send patients advanced in years into cold climates, as to send younger 'patients' into warm.

Treatment.—*Medicine.*—But can *Hereditary Consumption* be cured? it may be asked. 'Curing,' we reply, is a relative term; a man or woman may be 'cured,' that is to say, under proper treatment the disease may be removed or kept in abeyance. That the predisposition may continue, waiting some favourable opportunity to develope itself we admit, but the disease, both in its 'hereditary' and 'idiopathic' form, can in many cases be 'cured, and that too after ulceration has been going on for months. The power of hygiene and medicine, scientifically combined, and prudently applied, surpass in curative power anything that the most sanguine can conceive. Just a case in point. A poor widow came to consult us, one day, concerning her son, a youth about nineteen, worn to a skeleton, and so weak that we scarcely expected he could live to reach home. The case was, we felt, quite hopeless, and the idea of prescribing anything with the view of curing or even doing him much good was out of the question. The poor mother pressed us, however, to do something, and to oblige

her we hurriedly wrote the following prescription, telling her, at the same time, to take it to our assistant, and prepare it according to the direction. It was as follows :—

℞ Pulmonary Powder ..... One ounce.
Sanicula Europœa (Wood Sanicle, herb, dry)..... One ounce.

Infuse in three pints of boiling water; let it stand until cold; strain, add four ounces of lump sugar, and give a wineglassful four times a day.

This, plenty of new milk, with a little mutton suet boiled in it, the "Pulmonary Lozenges," and as much fresh air as he could get, was all we ordered; and strange as it may appear to those unacquainted with the power of simple remedies, the mother brought him about six weeks afterwards to see us, so very much improved that we could scarcely believe our eyes. We saw him but twice after this, and with just the addition of "Composition Powder," which we ordered to be taken with his meals as a beverage instead of tea or coffee, he was completely restored. The direction for taking the "Powder" was as follows :—

Put a quarter of a teaspoonful into a gill or half pint of boiling milk and water (equal parts), sweeten with lump sugar, let the powder settle, and drink the liquid only with the meals. Use it also with the dinner, and at bed time in the same way.

There were just three reasons for the rapid and favourable termination of the above case, and these were youth, relaxation from labour, and the restorative power of the medicines. Not that we can calculate upon the same results at all times, even where we have 'youth' and every other advantage on our side; nor have we introduced the case with any desire to excite strong hope, or to flatter in any way; experience has taught us to distinguish the favourable from unfavourable cases, but our failures have been too many to warrant us in being positive. Hereditary cases, particularly if accompanied with gastric irritation, which may be known by the scarlet or clean red tongue, want of appetite, nausea, and flatulency, are all but hopeless. The same may be said when it is complicated with disease of any other organ. 'Nature' and 'art,' when everything is done, have quite enough to do to resuscitate the system, where the *lungs* alone are seriously affected, and cannot do more except in very rare cases.

In the cure of *Consumption* the same general principle obtains; the system must be raised up, and to do this both medicine and food

must possess the constituents which the blood requires, and the digestive and respiratory organs be put into a condition to assimilate them. There is no other way, and it is pleasing to find that the great truths laid down by Dr. Samuel Thomson, of America, a full half century ago, have stood their ground against all opposition, and are now being acknowledged by all advanced medical reformers. "For hundreds of years," said Dr. P. W. Allen, at the last annual address to the Eclectic Medical Society of New York, "it could scarcely be said that there was any intelligent opposition to allopathy. Indeed that system was unquestioned. It was not only *the* system but it was *the* 'only' *system*. Samuel Thomson had announced the great practical truth that we must sustain the vital powers; that stimulation [natural.—*Ed.*] and not depletion was the true theory of medicine. * * * His doctrine of sustaining the 'vital powers' is prevailing more and more, and brightening many pages of medical and surgical science. Late in life he said to a friend, 'I have used some very unpleasant medicines,—awfully unpleasant,—cayenne and lobelia; but cayenne is the purest stimulant I know of, and lobelia the best relaxant I know of. I hope my successors will find pleasanter medicines, and I know they will; but the great doctrine of stimulating the vital powers, promoting the secretions, and thereby eliminating the disease, can never die. Calomel and blood-letting will soon be despised, but these principles will live for ever.'" It is pleasing, we say, to see 'advanced reformers' turning to this simple humble man and acknowledging his great merits. It is this principle which gives vitality and sustains it; and only as the body can be raised up is it possible to eliminate disease. But is the principle true? it may be asked; the response must be, yes! and it cannot be successfully controverted. What then? Why just this. That, and only 'that,' which possesses the 'health'-creating and health-sustaining power,—that only into which the spirit of life has passed; or, in other words, that only which is organic can reinstate or bring back the power lost; that only which agrees with the natural economy through which, and upon which, the harmony and unity of life depends in its relation to all and everything that appertains to the health and well-being of mankind, can by any possibility be correct or safe in practice.

We are bound, therefore, in treating disease, particularly consumption, to keep this view before us. In very many other forms of

disease nature will cure even where the treatment is improper, but in 'consumption' this cannot be, nor is it possible to treat it in all its various forms by the same uniform plan.

In cases where gastric irritation obtains, accompanied with *hectic fever* (morbid heat, habitual, protracted), if the patient is not too far reduced, the "Medicated Vapour Bath" (see "Index") may be used with the greatest advantage twice or three times weekly, so long as the symptoms continue. Indeed there is no other treatment to be depended upon; the symptoms must be treated at the same time medically; for which purpose prescribe—

℞ Tincture of Sanguinaria ..... Half drachm.
Antispasmodic Tincture ..... Half drachm.

Mix, and give from three to four drops, in a little of the "Digestive Food," every three or four hours, using the latter at the same time as a diet, as freely as it can be taken.

In all cases where "blood poisoning" obtains, fever, more or less, will be present; hence the body wastes daily, whilst labouring under an irritable cough with little or no expectoration. Should the fever be accompanied with, or followed with, remittent or intermittent exudation from the skin (day or night sweats), the same treatment must be prescribed, with the addition of "Cold Medicated Towel Baths" (see "Index"). To arrest the "fever" and prevent the "exudation," the "blood poison" from whence they arise must be removed, and there is nothing so effectual as the above treatment.

Should the disease be complicated with relax of the bowels, prescribe—

℞ Eupatorin ..... Ten grains.
Leptandrin..... Ten grains.
Podophyllin ..... One grain.
Powdered Ginger ..... Twenty grains.

Triturate or well mix, divide into twenty-one parts, and take one part three times a day.

This medicine acts as an alterative, and meets the indication of the disease by removing the 'poison' through the *kidneys*, *liver*, *intestinal canal*, and secretory and excretory outlets generally.

It is little more that need be said regarding the "complications." Whatever they may be, however, whether from the *stomach*, *liver*, *pancreas*, *intestines*, *kidneys*, *brain*, *throat*, *heart*, or any other organ

or part, they must not be overlooked; nor should we forget that consumption is no more a distinct 'entity' than any other disease connected with the body. It is related to it, belongs to it, forms a part of it—suffers and sympathises with it; and to understand it upon this principle, that is to say, as belonging to the system, and work the restoration out through the agency and power of the 'whole,' is the only way of successfully grappling either with this or any other disease.

Every medical practitioner of experience knows the various forms which disease sets up in different constitutions, how necessary it is to distinguish one from the other, and whilst dealing with it in its general aspect, to meet it at the same time in all its contingencies and deviations.

Apart, however, from these and the complications that so often attend it, there is one form of 'consumption' which is truly expressed by the term as we now understand it, that is to say, where it is uncomplicated with any organic lesion or disease of any kind, where the cough is continuous, the expectoration profuse, and the substance of the lungs deeply and extensively ulcerated. The stomach, liver, kidneys, intestines, and every organ or part, do their work in order. There is no "blood poisoning," *hectic fever*, nor *exudation from the skin*, nor any of the symptoms which mark the complicated cases which we have already treated. It will be seen at a glance that the reason of this lies in the fact that the *pus* is not absorbed, but thrown out of the system, as soon as the decomposed part of the lung is separated, or disconnected, from its union. Now this form of disease is more amenable to medication than any other, and less skill is requisite to cure it.

It is purely a question of healing or arresting the disorganization which is so rapidly going on. In all such cases prescribe—

℞ Lobelia (herb and seed equal parts, in powder) ..... One drachm.
Capsicum (Cayenne, in powder)..... Ten grains.

Infuse in a pint of boiling water, sweeten with lump sugar, let the powder settle, and drink in wineglassful doses at bed time, every ten minutes, until the whole is taken.

This will induce emesis or vomiting, and may be prescribed every second or third night.

During the day, the "Patent Pulmonary or Cough Lozenges"

should be used freely, with all the good wholesome air that can possibly be had. There can be no such thing as "healing," except through the renewal of the blood, hence the importance of keeping the air cells free from accumulating *pus*, and recreating the life-renewing power through natural medication. Prescribe—

℞ Marrubium Vulgare (Horehound, garden herb, dry) One ounce.
Sanicula Europœa (Wood Sanicle herb, dry) ..... One ounce.
Hyssopus Officinalis (Hyssop herb, dry)..... ..... One ounce.
Pulmonary Powder ..... Half ounce.

Infuse in two quarts of boiling water, and let it stand, covered up, by the fire for one hour, after which strain, express, add four ounces of lump sugar, and take a wineglassful from four to six times a day.

Use no tea nor coffee with the meals, but in their stead the "Convalescent Powder" (see "Index"), and take as directed. Boiled milk, sweetened with lump sugar, and good wholesome bread form an excellent diet; a little beef and mutton suet may be boiled in the milk sometimes, in change; but when these are used, 'sugar' need not be taken.*

In concluding our remarks upon *Consumption*, we would simply remind the student that its cure is purely a matter of *healing*, *building-up*, *restoring*, and that to do this the disease must not only be understood, but the science of life, as it relates to *hygiene*, *food*, medicine, and every adjunct that can be made available for the purpose,

* To distinguish in what part of the lung or lungs the disease is seated, and the advance or condition of the parts for the time being, a correct diagnosis is necessary, which is not difficult to a man of practical experience. His *eye* and *ear* are quite sufficient without any adventitious aid. He can scarcely venture to say this, however, without being censured for carelessness and want of skill, hence he is expected, by the generality of patients, to make some kind of scientific parade. A very neat nice stethescope is considered a great essential, a sort of magic instrument, through which he may detect the mysterious process which is going on within. There is nothing, we have said (see page 302), so efficient as the "ear," not that there can be any objection to the 'stethescope,' indeed it may be useful, and doubtless is, for in the majority of cases it satisfies the patient and helps to establish the reputation of the "medical attendant"; but, beyond this, it is all but valueless; nor, indeed, is anything of value unless it in some way aids us in curing; for, of what avail is it to know in what part the tubercles or ulcerations are seated, if we know not this (see *Acute Bronchitis, Pleurisy, and Pneumonia*, pages 287 to 302), and call to mind that the difference between *Consumption* and *Asthma* is simply that which has grown out of advanced causes, and that the sounds vary accordingly. The same may be said of *Chronic Bronchitis* and *Chronic Pleurisy*; and to know this is to know all that is of value. More may be necessary where folly and fashion rule, but not where experience and sound practical therapeutical knowledge obtain.

must be applied. Beyond all other forms of disease, the treatment of this requires extensive thought, for it cannot be met by the same means that many others can. The medicine used must have volume, that is to say, it must have the nutritive or building-up power in quality and quantity. Its complications may be met, indeed they can and are better met by active medicines in small doses, but the uncomplicated disease cannot be.

HÆMOPTYSIS (*Bleeding from the Lungs*).

Description.—This should be considered as a complication of one of the many diseases to which the lungs are liable, rather than as a distinct or primary disturbance. That there may be cases where no previous disease existed is true, but whenever these occur it is invariably the result of accident or violence. The rupture of one of the pulmonary arteries from a blow, from falling, or from being thrown from a horse or carriage, from wrestling, jumping, running, or any similar cause, may take place at any time, and there is no difficulty in distinguishing these from cases that grow out of a gradual process of decay. There was a time when sanguinous apoplexy was considered as a distinct or separate disease, when no notice was taken of the condition of the blood and brain upon which the disease depended, and when the attack was treated simply as 'rupture,' irrespective of all other considerations. Experience, however, has at length taught us that the immediate cause arises from gradual decay of the arteries, and that there is no safety apart from preventive treatment. The same may be said of *Hæmoptysis*, or bleeding from the lungs. "Violence," as we have said, or "accident," may rupture or destroy the continuity of either the brain or lungs, but in all other cases the causes will be found to lie much deeper, and these must be understood before we can successfully treat the disease.

Causes.—Accidents from falls, or from being thrown from a horse or carriage, wrestling, lifting heavy weights, running, jumping, blows, or from violence of any kind. As a concomitant of pulmonary disease, vomicæ, ulceration or tubercular deposit, congestion in the substance of the lungs, *Asthma*, decay of the arteries, general

plethoric condition, or from vicarious menstruation, particularly in the advancing periods of life.

Diagnosis.—Tightness within the chest, difficulty of breathing, irritable tickling cough, accompanied more or less with bleeding, mixed with mucous, at times clear, of a bright scarlet colour, at other times in mouthfuls, and in extreme cases in constant or irregular gushes.

In this, as in all disease, the danger is in proportion to the extent of the injury or the condition of the parts implicated, and must be accepted as favourable or unfavourable in accordance with the actual state of the case. There is nothing more alarming than sudden attacks of this kind; they may be considered as salutary in many of the milder cases, however, and even in the more severe the danger is not always so great as we are apt to fancy.

Treatment.—*Hygiene.*—See *Consumption*, pages 381 to 383, consider the causes from which the attack has arisen, the character of the blood, and condition of the disease. To arrest the hæmorrhage we must heal the rupture, and this cannot be done but through the agency of the blood. If it has been caused by violence or accident, and the patient is otherwise healthy, there will be little more required than rest; whatever the cause, however, 'rest' is one of the great essentials of cure. The hygienic conditions in all else are the same as in *Consumption.*

Treatment.—*Medicine.*—If we are satisfied that the hæmorrhage is a concomitant of *Consumption*, as it is in the majority of cases, we must treat that disease, using means at the same time to arrest it. If it arise from an inflammatory or congested condition of the lungs, or from plethora, as it sometimes does, we must satisfy ourselves as to the true cause, and endeavour to remove the former and supply the latter with the healing properties necessary to effect the restoration or cure. The same may be said of that particular form of vicarious hæmorrhage which is sometimes found to follow the change in advanced periods of female life.

It will be seen from these remarks that there are four distinctly marked conditions of *Hæmoptysis*, or bleeding from the lungs, which it is necessary to distinguish, in order to treat the disease successfully.

In the first case, where the hæmorrhage is a concomitant of "consumption," in change with the medicines recommended for that disease, prescribe—

℞	Trillin	Ten grains.
	Powdered Ginger	Twenty grains.
	Powdered Lump Sugar.....	Thirty grains.

Triturate or well mix the whole, divide into twenty-one powders, and give one powder three times a day.

In the second case, where the hæmorrhage arises from an inflammatory or congested condition of the lungs, see ("Index") "Local Medicated Vapour Bath," and prescribe in addition to the medicine recommended in the last.

In the third case, where the hæmorrhage arises from a plethoric condition of the lungs, in addition to the above medicine, prescribe—

℞	Symphytum (Comfrey root, dry)	Two ounces.
	Glycyrrhiza Radix (Liquorice root, dry)	One ounce.
	Capsicum Pulv. (Cayenne)	Ten grains.

Bruise the roots, and gently simmer or boil (in a porcelain vessel, covered) in two quarts of water down to one; let it cool, strain, and take a wineglassful four times a day, unsweetened and cold. Keep the bowels comfortably open.

In the last case, where the hæmorrhage is "vicarious," from the condition of life named, the general health must be attended to, and the same medicine prescribed as in the other cases.

How little is really understood of the true character of *Hæmoptysis* may be known by reference to the treatment, not only of the old school but even of the modern; and that they who assume to practice medicine as a science should understand so little concerning it would surprise us if we did not know how difficult it is for the mind, when distracted by false theories, to see the force of simple truth, and accept it in place of error.*

* (1) "Bleeding, cupping, ice, tartar emetic, sulphuric acid, acetate of lead, hyoscyamus, digitalis, opium, acetic acid, and gallic acid, are the old school remedies; (2) whilst the Homœopathic are, sulphate of soda, sulphuric acid, aconite, ipecacuanha, hyoscyamus, arsenic, opium, nux vomica, sulphur, dulcamara, iron, ice, belladonna, vegetable charcoal, arnica, pulsatilla, &c."

1. See "Hooper's *Vade Mecum*," seventh edition, 1864, pages 530 and 531.

2. See "Homœopathic Physician," by J. H. Pulte, M.D., revised by John Epps, M.D., 1855, London.

The object of these remedies is doubtless to arrest the hæmorrhage; and whilst we shall not presume to dispute the value of several of them, we say, nevertheless, that, taken as a whole, they are nothing better than a jumble of extremes, administered without regard to the principles upon which the crasis of the blood depends for its healing or restorative character.

ORGANIC DISEASE OF THE HEART, ATROPHY, HYPERTROPHY, VALVULAR DISEASE, DILATATION, AND FATTY DEGENERATION.

Description.—The heart, like every other organ of the body, is liable to disease, which may be either *acute* or *chronic*, according to the general condition of the system and the causes from which they arise. It may not be altogether out of place to remind the student that the 'heart' is a muscular organ, lying within the cavity of the chest, and that its purpose is to receive the venous blood and lacteal or milk-like fluid through which the system is being continually supplied with new material, and convey the same through the pulmonary arteries into the lungs, where, after exhaling or throwing off the carbonic acid, it is again returned to the heart in a renewed condition, and distributed from the large aorta into the numerous arteries, organs, and parts, agreeably to the requirements of the system. Of the structure of the 'heart' little need be said, beyond stating that it is divided into a right and a left *auricle* and a right and left *ventricle*, and that, to prevent regurgitation or return of the blood, these are supplied with valves, which, like the more solid substance of the organ, are equally liable to disarrangement.

It will be seen from the different diseases, or forms of disease enumerated, that we prefer to consider them under one head, rather than as distinct, and we do this because the 'heart' must be understood and treated as a whole. To know the part that is more immediately affected is right and necessary, but this knowledge gives us no power in curing, except in relation to our general knowledge.*

* For description of the heart, circulation, &c., see Chap. XI., pages 270 to 276.

Causes.—We have seen, from the consideration of other forms of disease, that what is called "predisposition" may be transmitted and developed under certain circumstances at almost any period of life, and that it manifests itself in the particular organ or part that partakes more immediately of the original defect. The heart is no exception to this rule, hence an abnormal change may at any time be set up which, gradually advancing, finally terminates in some particular form of organic disease. It may be *Atrophy* (wasting), *Hypertrophy* (enlarging), *Valvular disease* (decay or rupture of the valves), *Dilatation* (distension of the auricles or ventricles, or both), *Ossification* (bone-like), or *Fatty Degeneration* (soft, flabby, obstructed with fat). To give to each of these distinct causes, is to attempt what cannot be done with anything like satisfaction, inasmuch as the same or similar circumstances may give rise to any one of them if the predisposition is there.

The immediate "cause" or "causes" of *Atrophy* may be said with very great propriety to be obscure and uncertain, nor can we approximate nearer than by saying it may arise from anything that tends to depress or reduce the system, or as a *sequelæ* of some cardiac affection, from compression of the chest, confinement, sitting at the desk, or sedentary employment.

The immediate "cause" or "causes" of *Hypertrophy* are not so 'obscure or uncertain'; we know that exercise up to a certain point enlarges and strengthens the muscles, and that the heart may become enlarged from similar causes. *Hypertrophy* may arise, however, as a *sequelæ* from *pericarditis*, *endocarditis*, *emphysema*, disease of the chest, or indeed from 'disease' of almost any kind.

The immediate "cause" or "causes" of *Dilatation* are poverty of blood from *chlorosis*, general debility, valvular disease, &c.

The immediate "cause" or "causes" of *Valvular Disease* are doubtless weakness of the valves and great muscular exertion; but the remote causes are clearly traceable to 'predisposition' from germinal transmission, or as a *sequelæ* of rheumatic gout, or it may arise from obesity, or the degenerating influences that accompany the periods of life from which it is developed.

The immediate "cause" or "causes" of *Fatty Degeneration* are repletion, from luxury and want of exercise. It is dependent upon a general deterioration of the blood, and, like nearly all *cardiac* disease, is more or less a concomitant of general disarrangement.

DIAGNOSIS.—*Atrophy* may be known by the general debility of the patient, giddiness, fainting, feeble and irregular pulsation, painful and oppressive respiration, chlorotic puffy countenance, extreme prostration, &c.

Hypertrophy may be known by the enlargement and increased force of the heart's action, which is not only visible to the eye, but may be distinctly felt under pressure of the hand.

Dilatation of the heart may be known by the tremulous fluttering, irregularity of pulse, swelling of the veins, distinct venous pulsation on the sides of the neck, difficulty of breathing, drowsiness, mental anxiety, and general debility,

Valvular Disease may be confined to a single 'valve,' or it may affect the *tricuspid* (valves of the right side), the *mitral* (valves of the left side), or the *aortic* or *pulmonary* valves. In either case it needs no great amount of pathological or anatomical knowledge to see that the danger must be in proportion to the extent of the parts implicated. HARVEY called the heart "the household divinity, which, discharging its function, nourishes, cherishes, quickens the whole body, and is indeed the formation of life, the source of all action." We may accept this as literally true, and apply it with more or less certainty to whatever disarrangement the heart may labour under, but more particularly to the valves, for when these are diseased it is impossible the blood can be propelled with anything like regularity, hence almost any form of disease may grow out of even the slightest defect. To *diagnose* each particular disarrangement that may exist in the valves is quite unnecessary; for, even if we could do so, it would give us no therapeutic advantage, hence we shall content ourselves with generalities, rather than nice distinctions. Indeed we can truly say, however desirable it may be to give details, that it cannot be done with anything approaching to satisfaction, seeing that there is no uniformity of character in any of them.

Valvular Disease is distinguished by the hard irregular palpitation that uniformly accompanies it, tightness, heaviness, and oppression, difficulty of breathing, pain in the stomach and around the region of the heart, faintness, giddiness, flatulency, sharp cutting lancinating pains when walking, particularly up hill, or exercising the body in any way.

Fatty Degeneration may be known by the stout puffy appearance of the patient, difficulty of breathing, and the concomitants that

attend it. It is rarely or never found except in connection with 'degeneration' of the liver and internal viscera generally.

Treatment.—*Hygiene.*—The 'heart' is no exception to the rule which we have chosen to guide us in our treatment of every other organ. It has no independent existence, but is governed by the blood, whether in health or disease. It is very well known at present that *muscular tissue* and *blood* possess exactly the same elements, that in fact the former is nothing more than blood in a higher state of organization. Whether this fact was known to Hippocrates, Galen, and the ancients, we cannot say; certain it is, however, that up to the time of Cullen, diseases were considered to originate from a morbid condition of the fluids; hence the word "humeral" represented the universal pathological idea. "Cullen and others asserted that the solids were the exclusive seats of morbid change, and out of this arose the doctrine of 'solidistic' pathology, between which (says Mapother) we shall find the truth lies. Blood diseases consist in either an increase or decrease of the amount of the circulating fluid, or of some of its constituents, or in their degeneration." Now, these remarks are nothing more than a play upon words, used without doubt to satisfy all parties, but certainly with very little chance of doing it; for, if "blood diseases consist in either an increase or decrease of the amount of the circulating fluid, or of some of its constituents, or in their degeneration," in what else can disease consist but the "blood"? That idiopathic disease may not be confined to the blood we readily acknowledge, but that it can arise from any other immediate cause is certainly more than we are prepared to admit. The heart is made from the blood, and unmade from it, as the body itself is, and unless this fact is recognised, it is all but impossible to understand and treat its disarrangements successfully.

To know this, will teach us to place our dependence upon *hygiene* as much or even more than upon *medicine*. Just a case in point: a gentleman, named Le Warner, of independent property, and in all respects a truly benevolent man, had descended from a family predisposed to *gout* and *fatty degeneration of the heart*, of which they all died early. He became acquainted with our views upon this and other forms of disease, as well as our mode of treatment, and by adopting an opposite course to that of his father and brothers, lived to a good old age. The hall in which he had been brought up,

with all its luxuries, he forsook, and took up his residence in the cottages of the poor, eating, drinking, and sleeping under the same roof, and working in the fields with them. To see him returning in his heavy boots and labourer's dress from his own land (which was rented by a poor man), and upon which he worked gratuitously daily, was truly a noble sight. It was thus he lived and thus he toiled, distributing of his independence to the poor and needy; by which means he kept the predisposition in check, and lived to count nearly three score and ten years. In speaking of the advantages of hygiene and medical knowledge, as we did whenever we met, his regret was that we had not known each other earlier. "I knew our family complaint well enough," he said, "but did not know how to prevent it from overtaking me: had I began early, it might have been done, but when I first knew you it was too late to do more than keep it in abeyance." This was true; the result, however, was seen in the many years that he lived beyond those of his family.

In all diseases of the heart, then, hygiene must be strictly enforced. Not that medicine is valueless, but that both must be judiciously combined; and where they are, it is truly astonishing to see what may be done, particularly with the young. Confinement should be carefully avoided in all primary cases, or wherever the predisposition is suspected. The conditions out of which the disease arises should be removed, and every possible means employed to resuscitate the general system, for upon this the restoration of the heart depends. In the *aged*, *debilitated*, and *debauched*, or in cases far advanced, hygienic measures must be considered rather as a means of preventing the sudden collapse that so frequently occurs where over excitement or other causes produce lesion or rupture in the nervous or arterial centres, rather than as a means of cure.

Treatment.—*Medicine.*—See *Pericarditis* and *Endocarditis*, pages 340 to 345, and in distinguishing *acute* from *organic* disease of the heart, it will be easy to see how the latter may grow out of the former,—how it may be complicated with other diseases, or how other diseases may be complicated with it. No fact is better attested than that whatever reduces the system generally affects the heart. Hence *Alcohol*, *Tobacco*, *Digitalis*, *Fevers*, *Peritonitis*, *Dysentery*, or any thing that exhausts the vascular and nervous energies, more or less induces disease of the heart. What is the condition of your patient? how

situated? what age, sex, employment? &c., are all questions to be settled during the examination. To raise the body up, through a total change of circumstances and habits, renew the blood by food and medicine, or where the structure cannot be restored, prevent further degeneration, constitutes the secret of *mitigation* and *cure*.

Is it *Atrophy* or wasting of the heart? Look well to the complications and general condition of the system, attend to hygiene, and raise the system up by nutritious diet and appropriate medicine.

Prescribe—

℞ Mellisa Officinalis (Balm herb, dry) ..... One ounce.
Fluid Extract of Leonurus Cardiaca (Motherwort herb, dry) ..... Half ounce.

Infuse the herb in a covered vessel in a pint of boiling water; let it stand from twenty to thirty minutes, after which strain, add the extract, and give a tablespoonful four times daily.

Should the disease be complicated with gastric disease or flatulency, prescribe—

℞ Compound Lobelia Pills (one after meals)... Two and a half grains.

or five grains, according to age and condition. See "Index." Use the "Digestive Food" daily, and the "Convalescent Powder," instead of tea or coffee, with the meals.

Should the liver be affected, prescribe—

℞ Compound Powder of Leptandrin ..... One grain daily.
See "Index."

Is it *Hypertrophy?* Look to the complications, as in the last, trace the predisposing causes, strengthen the general system, reduce excessive arterial excitement, enforce gentle exercise on foot, and prescribe—

℞ Five grain compound Lobelia Pill, one after meals, and the medicine recommended in *Atrophy*.

Is it *Dilatation?* Enforce quiet. Prescribe the same medicine as the last; and order the following to be drank as a beverage with the meals instead of tea or coffee—

℞ Betonica Officinalis (Wood Betony) ... . One third part.
Spirea Ulmaria (Queen of the Meadow) ..... Three parts.

Is it *Valvular Disease?* Note the condition of your patient, trace the antecedents, enforce quiet, and prescribe the same medicine as in *Dilatation.*

Is it *Fatty Degeneration?* Note the antecedents, reduce luxuries, all kinds of rich food, wines, spirits and beer; enforce quiet, with gentle walking exercise, and prescribe same medicine as in *Hypertrophy.*

It will be seen by reference to pages 340 to 345, *Pericarditis* and *Endocarditis,* that we prescribe—

℞ Tincture Veratrum Viride ..... One drop
to every two tablespoonfuls of medicine.

It may be employed with the same advantage in every form of chronic disease where there is great arterial excitement, either in the same doses or rather larger. The only consideration in using it is care. It should not be pushed beyond four or six drops of the pure tincture during twenty-four hours.

It is equally as effective if mixed with an equal quantity of simple syrup, in which case two drops instead of one may be given.

In addition to the forms of disease named there are others that are now and then met with, such as *Angina Pectoris, Ossification of the Arteries, Hydatid Tumours,* &c.; but these are of rare occurrence. We recollect a case of sudden death occurring in Smithfield, London, to a man about fifty years of age, well nourished, and apparently robust. He was brought into Saint Bartholomew's Hospital; and although the *post mortem* was conducted with every care, no absolute cause could be detected. The brain and internal viscera were perfectly healthy, and the heart was slightly hypertrophied, but not sufficient to account for death; at length, however, in cutting through the heart transversely, a rough sandy sound was heard, which was found upon examination to be "ossification of the arteries." Here, then, was the cause: the vessels which supplied the muscular structure of the heart were no longer capable of conveying the blood—its action ceased—and death followed as a consequence.

PALPITATIO *(Palpitation of the Heart).*

Description.—From what has been already said concerning *Organic Disease of the Heart* and *Dyspepsia*, or "indigestion" (to which the student will do well to refer and carefully read), it will be easy to understand the numerous causes which give rise to *Palpitation*. It must not be presumed, however, that there can be no such thing as "palpitation" without actual organic "disease," for this would be a serious mistake. A low state of vitality, or anything that reduces the system may be a cause of *Palpitation*, that is to say, the heart cannot perform its work for the want of a proper supply of blood, hence it is said to be "functionally diseased," which means, that there is nothing the matter with the 'heart' itself, but that there is something wrong with the stomach, nerves, or system generally, which, if not attended to, will most assuredly lead to 'organic disease.' The 'heart' may be considered in the light of a household pump, which may be tight and in good repair, but from a deficient supply of water, and the rough work to which it is put, it is forced to do by violence what, if well supplied, it could do with ease, and is consequently thrown out of repair. The fault is not in the 'pump,' but in the want of water and the bad management of those who use it. This, which is "functional disease of the 'pump,'" soon becomes "chronic or organic disease of the 'pump,'" and it is very easy to see how readily the one may run into the other.

Causes.—"Every affection of the mind," says Harvey, "that is attended with either *pain*, *pleasure*, *hope*, or *fear*, is the cause of an agitation whose influence extends to the heart, and there induces change from the natural constitution, in the *temperature*, the *pulse*, and the *rest*, which, impairing all nutrition in its source, and abating the powers at large, it is no wonder that various forms of incurable disease are the consequence." Anything that affects either the mind or body may become a cause of *Palpitation*, for both have a direct influence upon the heart:—grief, fear, anger, anxiety, joy, and the same or similar causes that give rise to "indigestion," such as *smoking*, *drinking*, *confinement*, *study*, *dissipation*, *inflammation*, *fever*, *Chlorosis or green sickness*, *abuse of the passions*, *loss of appetite*, *seminal*

disease, or anything and everything which has a tendency to reduce the system. To keep the heart healthy and in regular action the body must have a sufficient supply of blood, which must be carried, both in its venous and arterialised state, in sufficient quantity to keep it constantly at work. Men and women in a state of perfect health never trouble themselves about their hearts, in short they do not know that they have any, except when under the sympathising influence of that strange instinct which changes two hearts into one. Under these circumstances their hearts often 'palpitate' very violently while passing through the transformation.

Diagnosis.—Painful feeling around the region of the heart, lowness of spirits, difficult respiration, physical degeneracy or loss of strength, nervousness, fear, palpitation, throbbing of the temples, pain in the head, flatulency, a feeling of faintness, restlessness, languor, loss of memory, &c., &c.

Treatment.—*Hygiene*—See "Index," *Dyspepsia.*

Treatment.—*Medicine.*—There is only one thing to be done, and that is to give volume and quality to the blood, and in everything we do it should be the ultimate object, for unless we can accomplish this the difficulty cannot be removed. To the best of our knowledge we have never met with a case of *Palpitation* apart from vascular vitiation or deficiency, and, as a consequence, an abnormal circulation, no matter what the cause or causes. It might have originated in a low state of vitality, from mental anxiety, hope, fear, pecuniary embarrassment, smoking, drinking, debauchery, drugging, fever, inflammation, sedentary employment, seminal disease, abuse of the passions, or anything else, still the one uniform immediate cause is ever the same. And in what way, we ask, can *Palpitation* be removed, except through its restoration?

Is it 'idiopathic'? that is to say, a primary disease, dependent upon no other; or is it a concomitant of some one of the many disarrangements to which the system in part, or as a whole, is liable? If it can be traced to the latter, see "Index," *Dyspepsia*, or *Organic Disease of the Heart*, or if the *bronchi*, *lungs*, or other organ is affected, treat it in relation to the cause from which it arises.

All these considerations belong to the general study of therapeutics,

however; and from what has been said throughout the work, it will be all but impossible for any man having any pretence to medical knowledge to miss his way.

It will be understood that we are now treating *Palpitation of the Heart* simply as a functional disturbance, and not as the result of organic lesion, chronic disease, or as a concomitant of any other deeply-seated malady to which the body is liable. All these should be studied under their different heads, and wherever *Palpitation* supervenes upon another disease, or is found as a concomitant, it must be treated agreeably with the original or primary disturbance. With these important considerations impressed upon the mind, we know exactly what we are doing, and escape the confusion so common in medical works, where authors, without a clear conception of first principles, heap up a confusion of words which may be equally applied to every form of disease.

Again, then, we say, there is but one thing to be done in the treatment of *Palpitation*, and that is to give "volume" and "quality" to the blood, and to do this every hygienic and medical means must be employed. The mind must be quieted by assurance of hope—false impressions must be removed, and confidence restored. Tea and coffee should be laid aside, and the "Convalescent Powder" (see "Index") taken as a beverage with the meals instead. As a medicine prescribe—

℞ Fluid Extract of Leonurus Cardiaca (Motherwort) Two drachms.
Antispasmodic Tincture ..... Two drachms.
Soft Spring Water ..... One-and-half ounce.

Mix, and give from a half to a teaspoonful four times a day.

Use the "Digestive Food," and such other light nutritious food as the stomach can take. Get into the fresh air as much as possible; and should it be necessary to assist the bowels, prescribe—

℞ Compound Powder of Leptandrin ..... One grain,
at any time when necessary.

In addition, the "Convalescent Powder," as a beverage, instead of tea or coffee, may be taken; or the patient may take in change the "Betonica," and "Ulmaria," as prescribed in *Dilatation of the Heart*, see page 398.

For "Compound Motherwort Pills," and "Nerve Pills," with their uses, &c., see "Index" and "Appendix."

ANGINA PECTORIS (*Syncope Anginosa*).

Description.—This disturbance is of a very peculiar and distressing character, concerning which little is really known. It is said by some who stand high in the profession to be caused by neuralgia and spasm of the muscular structure of the heart; whilst others equally high deny this, and attribute it to a rheumatic and gouty diathesis; but be this as it may, there cannot be two opinions regarding the danger attending it.

Causes.—We know little of the pathology of the disease, and just as little of its causes. All we know is that it is common at a certain age, rare in women, and rarer still in children. Men over fifty years of age, apparently in good health, and free from the symptoms which attend other forms of heart disease, are generally the subjects of this. There is little or no "palpitation" in its primary states, nor any evidence of very great irregular arterial action; after a time, however, it gives its warnings, and then it is that immediate medical attention is necessary.

Diagnosis.—Sudden and severe pain across the whole of the chest, extending to the arms and hands. The attack generally comes on whilst walking, particularly up hill, when using a little extra exertion, which, upon standing still for a minute or two, passes off and leaves the patient free from apparent danger. It is commonly known by the name of "breast pang," and the term very fitly represents it: as time advances, however, the attacks increase, are longer in duration, sometimes coming on during the night or in the morning, and so severe that it is difficult to prevent sudden collapse of life. The sufferer is forced, if walking, to remain very quiet until the spasm is relaxed, when the pain leaves. In this way it gradually advances until the contraction or 'spasm' at length becomes rigid, refuses to yield, and the patient dies suddenly.

Treatment.—*Hygiene.*—See *Organic Disease of the Heart (Hygiene)*, page 395, attend carefully to ventilation, and avoid excitement of every kind.

TREATMENT.—*Medicine.*—The indication is to relax the spasm and prevent its recurrence, for which purpose, prescribe—

℞ Antispasmodic Tincture..... One ounce.

From a half to a teaspoonful three times daily, or occasionally, as necessary, in a teaspoonful of cold water.

This medicine affords immediate relief in the severest attacks, acts as a preventive, and if taken immediately the paroxysm is felt, the spasm relaxes at once.

Attention should be paid to the bowels, for which purpose prescribe—

℞ Compound Powder of Leptandrin ..... Two grains.

At any time when necessary, and instead of tea or coffee use the "Convalescent Powder," made simply with equal parts of milk and water (See "Appendix" and "Index").

Neither spirits, beer, porter, nor wine, should be taken on any account, nor rich food of any kind. The plainer the living, in fact, the better.*

* "Notwithstanding the remarkable distress characterizing the paroxysms, in this disease, particularly in its acute state, it sometimes does not early affect the constitution or entail any particular lesion, the patient often enjoying tolerable health in the intermissions, and performing all his functions naturally and without embarrassment until shortly before an attack. After its protracted continuance, however, the vital energies of the frame, particularly as they are manifested in the digestive and circulating organs, give way. Marked disorder of the chylopoietic viscera, attended with various dyspeptic symptoms, occasionally with great irritability of the stomach and bowels, impeded respiration, anxious and pale countenance, flabby state of the integuments and muscles, marked derangement of the circulation, *Œdema*, *Dropsy*, &c., at last supervene. But it more generally happens that the patient is carried suddenly off by a paroxysm before this state of the system is occasioned, or he sinks under the complicated derangement proceeding from an attack, or from some one of the organic changes which the continuance and repeated fits of the disease had induced."—J. COPELAND, M.D.

It will be readily understood from these remarks that although this disease may give no external evidence of disarrangement, that it must have been gradually going on, and that the "acute" [primary.—*Ed.*] attack was simply a result of its progress. The same may be said of indigestion, disease of the liver, or indeed almost any other disease. It is not until it has reached a climax that the evil makes its appearance, and the very fact of the general condition which follows, where the patient does not succumb early, is the best evidence we can give for the necessity of attention to preventive treatment, and positive proof of the truth of the theory which we teach, viz., that the integrity of every organ or part, and the body as a whole, can not be sustained in health apart from the regular supply of blood through which it is constantly maintained.

There can be no doubt but the disease, although spasmodic, is nevertheless connected more or less with a gouty diathesis; and wherever the predisposition is, prevention in all such cases is better than cure. Luxuries should be avoided. See LE WARNER'S case, page 395, *Organic Disease of the Heart.*

DYSPEPSIA *(Indigestion).*

DESCRIPTION.—This is a chronic disease of the stomach, complicated in the generality of cases with more or less disarrangement of the *liver*, *pancreas*, and whole intestinal canal. Now and then we may meet with it in an uncomplicated condition, but when we do so, we must consider it as an exception rather than rule.

CAUSES.—Like every other form of disease it may be hereditary, or in other words, a low state of vitality, originating in the stomach of the mother or father, may be transmitted to the child, which predisposes it to the same affection in matured life. That children are born dyspeptic all medical professors of any experience are well aware, and any one acquainted with the habits of the London poor, when attending cases of *parturition*, can tell pretty readily the way in which the bodies of the infants which they bring into the world have been built up, and have no difficulty in predicating the chances for and against their future. A child may be born of healthy parents, and the predisposition to indigestion be laid in early life from bad nursing, improper medical treatment, and a hundred other causes; or it may be born of dyspeptic parents, and by careful management, a good breast of milk from a healthy wet nurse, and judicious medical treatment, possibly outlive the original deficiency. It is well for us to understand these apparent trifles, for although they may appear of little moment in the actual treatment of disease, they are evidence of that general knowledge without which no man can be considered to be well up in his profession. Of the immediate causes, we can only say that they are too numerous to be described. *Dyspepsia*, like other diseases, grows out of our *professions*, *habits*, *fashions*, *passions*, *vices*, and even our *virtues*, nor can any better evidence be had of this than the disease which we are now considering; for we know of no disarrangement half so common, nor none that

can with more certainty be traced to positive causes. Wherever men live temperately, avoid the common vices of cities, and are engaged in healthy employments, it is rare that they suffer from indigestion; but wherever they congregate in large numbers, and fall into the fashionable errors of society, there the disease is sure to abound. A young man, rich in health and full of life, comes fresh from the country into a city or town, ignorant of the many evils that lie in wait for him, and where the passions unchecked find room for indulgence: he soon contracts a disease of which he knows nothing, and is not so far sunk but that he desires to keep it secret: the tortures of his mind exceed those of his body: he seeks relief, but cannot find it. Abominable drugs, ignorant pretenders, legal or otherwise, or one or more of the cowardly advertising knaves who live by preying upon his class, make their market, rob him of his hard-earned means, and leave him a prey for the remainder of his life to indigestion. This is no over-drawn picture, but a sad reality practically known to thousands; nor is it too much to say that fashionable drugging, for the ordinary diseases to which men and women are liable, is more or less a prolific cause of the disease: to which we may add smoking, drinking, confinement in badly-ventilated workshops, mills, working under a high temperature, irregular living, sedentary employment, want of attention to the skin, the continuous drinking of tea, coffee, and the numerous irregularities and customs so universally followed. Apart from all these causes, however, there still remain many others: but enough have been enumerated to convince us of the necessity of avoiding them.

Diagnosis.—Pain in the region of the stomach, loss of appetite, flatulency, acid eructations or "heart-burn," lowness of spirits, dry furred tongue, pain in the head, nausea, and general depression. As the disease advances, the liver becomes implicated, then follow constipation alternated with diarrhœa, pains beneath the scapulæ or between the shoulders, bitter or bad taste in the mouth, palpitation of the heart, expectoration of offensive matter from the stomach, weakness of sight, shooting pains in the chest, floating spots before the eyes, general languor, restlessness, and debility.

Treatment.—*Hygiene.*—What are the causes? Settle this before

thinking of anything else, and be resolute in enforcing attention to instructions. Smoking, drugging, drinking, and excesses of every kind must be laid aside, or the disease can never be removed. One of the worst cases of the kind that ever came under our notice was in Manchester. A tall country farmer-looking man came to consult us, leaning upon the shoulder of his wife. "Take a chair," we said, and he dropped into it with a painful grunt, as if the effort was too much for him. "What's the matter?" we inquired. "I'm very bad, doctor, very!" "I see you are," was our reply. We felt his pulse, and found it weak, tremulous, and rapid. "Let me see your tongue? Why, you smoke!" "Well—yes, I do, doctor." "And pretty freely too," was our reply. "He does, doctor!" was the wife's response; "and it almost drives me mad and himself the nasty beastly stuff!" "And how much a day does he smoke?" we asked. "Fourteen ounces a week, doctor; and he says he can't live without it." "But you live without it, do you not?" we said. "Yes, I do," she replied, "and I am sure it would kill me if I was so foolish as to do as he does." "You are right," we said; and if your husband ever hopes to get better he must give up his tobacco." The poor unfortunate man appeared paralysed at the thought. He had been to many doctors, he said, and had taken "all sorts of physic," but not one of them ever told him this before. "And mun I ha' a single pipe?" he said. "No, not one!" we replied. "Then I mun dee!" (must die) he said; "come along whoam, Mag!" and sure enough he went home, and his poor disconsolate wife with him. In a fortnight after they came again, however. "Take a seat," we said; and he dropt into it with just the same sort of 'grunt.' "I am very glad to see you." "Made your mind up to give over smoking?" "Aye! may as well dee one way as t'other: if I gee up the pipe I mun dee; an' if I tak thy physic I mun dee; and if I don't tak it, th'oman's tongue 'll kill me." Now, here was a man full six feet in height, with a frame long enough and strong enough for another Hercules, reduced to a skeleton, exhausted, withered, shrivelled up as a dry red herring, a complete hypochondriac, with not blood enough in his body to drown a mouse. It was enough for our purpose, however; he consented to give over his folly. We undertook his case; adopted the means hygienically and medically; and nature cured him. We say 'nature,' for science consists in nothing more than the application of ultimate principles

to natural causes, and whatever success may follow our efforts, belongs rather to nature than us.

TREATMENT.—*Medicine.*—From our remarks throughout this work, the importance of hygiene will be readily understood. As a branch of medical science, we have stated, over and over again, it cannot be overlooked: and to neglect it, or depend upon medicine where it is of no practical good, is to commit not only a grave error, but to do in many cases incalculable mischief. Hydropathy is a branch of hygiene, as 'hygiene' is a branch of medicine, and in the treatment of almost every form of disease it will be found a most useful and important adjunct. It is a great mistake to ignore medicine, however, inasmuch as water or hydropathy, no matter whether used in the form of vapour, locally or generally, or as hot or cold baths, shower baths, sitz baths, cold or hot water bandages, or in any other form, can never supply its place. To call upon the *liver*, *stomach*, *intestines*, *lungs*, *heart*, *bladder*, and *kidneys*, to throw off their morbid accumulations through the skin, is to violate the principles of healing and outrage common sense. As well ignore the stomach in eating and drinking as in medicine; for the latter, scientifically understood, stands in the same relation to the body in a state of disease that the former does to the body in a state of health.

What is the condition of your patient? What age? How situated? How far has the disease advanced? What are its causes? Has it resulted from a combination of drugging, for the cure of primary disease of a syphilitic character? Can it be traced to fever? that is to say, Is it a sequelæ of some remote attack treated *secundum artem?* Presuming these points to be settled, the next thing is to know the character of the disease. Is it confined to the *stomach* or complicated with *ulceration* of the *intestines*, *neuralgia*, disease of the kidneys, bladder, heart, liver, with hemorrhoids, constipation, or vertigo? We ask this, seeing that any form of disease may be connected with it, for it is almost impossible that a man or woman can suffer for any very long time in the stomach without the whole body more or less becoming affected.

Presuming, however, that the case is one of simple *Dyspepsia*, and the patient is not particularly reduced, there is seldom any great difficulty with it. Prescribe—

℞ Compound Lobelia Pill ..... Five grains.

One after each meal daily.

Take no tea nor coffee, but the "Convalescent Powder" with the meals (see "Index"); and if the bowels are stubborn, lay aside butter, and use roast or boiled apples with the bread instead. As a daily medicine, prescribe—

℞ Hydrastin ..... Ten grains.
Leptandrin ..... Ten grains.
Ginger, (powdered) ..... Twenty-two grains.

Mix, divide into fourteen parts, and take one part at 11 a.m. and the other at 7 p.m.

If the patient has been in the habit of taking beer, ale, or porter, these should be laid aside; or if a total abstainer, he should take just one or two wineglassfuls of good mild ale with his dinner, and the same again at night. Should he from conscientious motives, however, object to 'ale,' he can prepare and take the "Diet Drink," No. 2, as recommended in "Appendix" (see "Index").

It will be necessary also to attend to the skin, for which purpose the "Towel Bath" may be used with advantage every morning, the first thing. It should never be overlooked in fact.

Should the liver be implicated, see "Index," *Chronic Disease of the Liver*, or should the bowels be constipated, prescribe—

℞ Aperient Pill (see "Index") ..... Five grains.

Two at bed time, or when necessary, or if preferred—

℞ Compound Powder of Leptandrin ..... Two grains,

at bed time.

The mouth should be well cleansed every morning with cold water, and the teeth attended to. See "Dentrifice" or "Vegetable Tooth Powder," ("Index" and "Appendix".) A wineglassful of good cold spring water, night and morning, the first and last thing, is an excellent tonic, and may be taken with every advantage. Should the appetite be bad, or a fluid medicine be preferred to the *Hydrastin*, *Leptandrin*, and *Ginger*, prescribe—

℞ Rad. Gentiana Lutea (Gentian Root) ..... Half ounce.
Rad. Dens Leoni (Dandelion Root) ..... One ounce.
Rad. Glycyrrhiza Glabra (Liquorice Root) ..... One ounce.
Tincture of Cayenne..... ..... Half drachm.

Crush the roots or cut them up small, and gently simmer in a covered vessel, in one quart of water, down to a pint and half; let it stand until cold, strain, add the tincture, keep in a cool place, and take a tablespoonful three times a day.

It will be necessary to bear in mind that the treatment is intended to apply only to "indigestion," and not to its complications. These will be considered under their respective headings. In cases of delicate females, prescribe—

℞ Compound Lobelia Pill ..... Two and a half grains.

One after meals, and attend to whatever irregularities may be found in each particular case, for which see "Index."

It will also be necessary to reduce the quantity of medicine wherever great delicacy or prostration exist, and not to employ the "Towel Bath" until the strength is improved sufficiently to admit it without risk of taking cold. The "Cold Air Bath" may be taken by the most delicate, however, at any time.

ULCERATION AND PERFORATION OF THE STOMACH AND INTESTINES.

Description.—It is very easy to see in what way acute inflammation of the stomach and intestines may lead to ulceration, although it is not in all cases that the progress of the disease can be detected. The inflammation may be circumscribed or confined to a very small spot, which may not put on the degree of violence common to *Peritonitis*, *Enteritis*, and *Gastritis*, still the pain, more or less, is constant, and finally settles down into ulceration, similar to the process which takes place in all inflammation which is not removed by resolution.

Causes.—Colds, blows, falls, or anything that may set up inflammation, improper medical treatment, or as a sequelæ of fever.

Diagnosis.—Constant pain, more or less, in the pit of the stomach or intestinal canal, vomiting of clear mucous mixed with

a little blood, at other times with offensive sanies or blood and pus. The same may at times pass from the bowels, the body gradually wastes, whilst the patient lies in a listless state of weariness, and evinces strong evidence of exhaustion. Sometimes *Perforation* takes place when least expected, in which case death may follow just as suddenly.

Treatment.—*Hygiene.*—See "Index," and bear in mind that healing an ulcer within the stomach or intestines in no way differs from "healing an ulcer" without; and there is no possibility of "healing" but through the blood. The diet must be light and nutritious, such as milk, beef tea, thin gruel, barley water and milk, tapioca, rice milk, and sago; and the "Digestive Food," where it can be had, should be used freely.

Treatment.—*Medicine.*—Promote expectoration and arrest nausea, for which purpose use the "Pulmonary Lozenges." We know nothing that can be taken with the same advantage. In their absence, however, prescribe—

℞ Lobelia (seed and herb) ..... Two drachms.
Pulv. Gum Acacia..... Two drachms.

Infuse the former in a half pint of boiling water, in a covered vessel, let it stand until cold, strain off clear, add the "Gum Acacia," well mix, until the two are well incorporated, after which add two ounces of honey, and give from a half to a teaspoonful at any time when there is anything to be removed from the stomach.

As a medicine, prescribe—

℞ Rad. Symphytum (Comfrey root, dry) ..... One ounce.
Sanicula Officinalis (Wood Sanicle, herb, dry) ..... One ounce.

Crush the roots small, and gently simmer, in a covered vessel, in a quart of water down to a pint and a half, after which add the herb, and simmer for five minutes; let it cool, strain, sweeten with lump sugar, and give a tablespoonful six times during the twenty-four hours.

The following may also be used with great advantage—

℞ Sanicula Officinalis (Wood Sanicle, herb, dry)... ..... One ounce.

Infuse in a pint and half of boiling water, in a covered vessel; let it stand an hour, strain, express, bottle; add a wineglassful, cold, to an equal quantity of new milk, boiled, sweeten with lump sugar, and give from four to six times a day.

The healing properties of this plant in internal ulceration, whether of the stomach or intestines, is truly marvellous.

One of the most striking cases of *Ulceration* and *Perforation* that ever came under our notice was that of a youth, the son of a farmer in Yorkshire. Adhesion had taken place from inflammation, and the ulcer had eaten through, and discharged its contents from the *duodenum*. The poor lad was literally starved to a skeleton. The idea of curing him never entered the head of any one, for he had been doomed professionally for some time. As a curiosity, we were invited to see him by one of our converts, who was related to him. We prescribed the "Sanicle" and "milk" internally, with bandages saturated with "Sanicle" infusion, externally, to be renewed as often as they became dry. "Do it yourself," we said to our friend, "for you see the father and mother know nothing about it—have no faith in us—will do nothing, and think you a great fool for putting yourself to the expense of a cab to bring us to see their doomed son." "I'll look to it, doctor," said he, "never fear." He did so, and the youth recovered, to the surprise of every one. "It was like raising him from the dead," so the poor of the neighbourhood said, and even now that he has become a man, although so many years have passed, his case is talked of as being all but miraculous. Another case of a similar character came under our care in Manchester. A man about forty years of age, a groom, suffered from imperfect *Inguinal Hernia*, which, from the want of attention, inflamed, passed into a state of ulceration, and terminated in perforation of the bowels, through which the *fæces* passed. He came to consult us, worn to a skeleton: and although the case was complicated with disease of the liver, we succeeded in curing him by the same simple remedies, with the addition of the "Compound Powder of Leptandrin" and "Convalescent Powder."

It will be proper to bear in mind that when the stomach or intestines are perforated internally, or through *Empyema* (blood poisoning from absorption of pus or matter into the circulation), that the chances of recovery are very small: where adhesion takes place, however, and the pus is thrown out of the system, the chances are much more favourable.

SCIRRHUS (*Cancer of the Stomach*).

Description.—This is a disease of a very serious character, as Cancer always is, wherever seated; and whatever other writers may

state as to their successful treatment, we are compelled to acknowledge that we have never succeeded in curing a case of genuine "Scirrhus" of the stomach, nor do we believe any one else has. This is no reason why it may not be cured, however; but until we know more of the true character of this and other intractable diseases, we shall be content to acknowledge our deficiency. It has been our lot to have very many cases under our care, and to know many others in the profession who have also had them; in all, however, whether within the hospitals or without, the same results have followed. We recollect being called to see a patient at Brentford, some few years since, who had been under the treatment of Mr. C. H. Cole, a gentleman of first-rate talent as an Eclectic practitioner, and a pupil of the late Dr. Beach. No man could have done more good, nor possibly so much as he really had done in the case, but, in spite of his best efforts, the patient gradually declined. We were requested to visit him, and upon examination found it to be a case of *Scirrhus*. The good wife was particular to have our "candid opinion," and we told her at once (in private, of course) that she must be content to part with her husband, but that, under the care of Mr. Cole, he might be spared for many months. "But Mr. Cole," she said, "thought it curable." "And what is the disease, Sir?" she asked. "Cancer of the Stomach," was our reply, "and of the very worst kind." We spoke positively, having seen so many of them. This opinion, was not satisfactory, however, and we learnt that very soon after a consultation of the family was held, and it was agreed that another London physician, who stood higher in the profession than we did, should be called in. He came, pronounced our diagnosis wrong, declared the disease was not "Scirrhus" at all,—that we were little better than a quack for saying so, and put the case under the immediate attendance of a surgeon of his own selecting, with a promise (to the delight of the patient and his family) that there was no danger. In less than six weeks, however, the man was dead, and the anxious, loving wife, minus a heavy bill. "Ah! Mr. Cole," she said some time after, when meeting him one day, "I wish I had taken your physician's word; but we were all so anxious." We direct attention to this case, in order that those in practice, whose experience may not be extensive, may avoid the common error of promising too much; for it is greatly against future success to miss one's way in diagnosis, and nothing brings a man into discredit so readily.

Causes.—There can be no doubt but that "cancer" has its predisposition in the blood, that like other 'blood' diseases, it is transmitted with the germ, and developed under favourable circumstances; hence the "cancerous diathesis" of particular families. That it may exist independently of predisposition we readily admit, and that even where there is a predisposition it may not at all times be devolved, we also admit; but these must be considered as exceptions rather than rules: hence a fall, blow, inflammatory attack of the stomach, *dyspepsia*, or anything that reduces the system or destroys the balance of the circulation (more or less vitiated) may become an exciting cause of the disease.

Diagnosis.—Pains in the stomach, sickness, flatulency, vomiting of bile and thick mucous. As the disease advances the pains put on a more acute character—the vomiting increases, the ingesta becomes frothy and acid, mixed with bloody matter, dark and offensive. The bowels are generally constipated, the body wastes, and the stomach becomes more or less hard and circumscribed in proportion to the position and size of the tumour. The most common form of cancer is the "Scirrhus" (hard, knotty, indurated), for although the stomach is occasionally the seat of *Medullary Cancer* (soft, brain-like), it rarely attacks a patient before the age of forty; after this period, however, it is not confined to any age. When the 'cardia' is the part affected, and the disease has advanced, vomiting begins immediately after eating, from the obstruction which takes place in passing the food, but when the 'pylorus' is the part implicated, the vomiting does not begin for some time after.

Treatment.—*Hygiene.*—See "Index."

Treatment.—*Medicine.*—If the case has made but little progress, or not passed beyond the primary stage, it may be mistaken, in nineteen cases out of every twenty, for *dyspepsia*. The diagnosis cannot well be mistaken, however, when it has advanced beyond this: and all that we may hope to do is to mitigate its severity, and by judicious treatment prolong life.

In the early stages of the disease it must be met by active measures, if any good is to be done; but if it has advanced into the fully developed "Scirrhus" the treatment must be simply palliative and gentle.

Prescribe in the early stage of the disease—

℞ Antispasmodic Tincture
From a quarter to half a teaspoonful, three or four times a day, and—

℞ Compound Powder of Stillingin,
From one to two grains daily.

Use freely of the "Digestive Food."

Should the disease advance, however, and the stomach be incapable of retaining food, nourish the system by *enemata*, beef tea, milk, and other nutritious fluids.

For Dietetic Prescriptions, Opiates, Palliatives, &c., see "Appendix," and "Index."

HÆMATEMESIS *(Bleeding from the Stomach).*

Description.—This is rarely a primary or idiopathic disease, but in general a concomitant of some chronic disorganization, hence it is connected in the majority of cases with *Aneurismal* rupture, tumour, scirrhus, or deeply-seated congestion. It may result from falls, blows, strains, extreme physical exertion, or anything that over taxes the system; but where it does not arise from causes such as these, we may make sure that some deeply-seated disarrangement lies at its root.

Causes.—From extreme physical exertion, wrestling, fighting, falls, kicks, rupture of the arteries, *aneurismal* rupture, ulceration, scirrhus, tumour, chronic inflammation, or congestion.

Diagnosis.—Dull heavy pain in the stomach, vomiting of blood, often in mouthfuls, dark, clotted, and generally without effort or straining; sometimes the discharge is offensive, and mixed with sanies, giving evidence of ulceration; at other times it is scanty, slightly mixed with sputa or mucous, and free from anything unpleasant. As a rule *Hæmatemesis* is distinguished from *Hæmoptysis* by the colour of the blood, the former being dark, and the latter florid or scarlet. This rule is not without its exceptions, however: hence, if an artery is ruptured, and the blood is ejected immediately, it will be 'scarlet'; the same colour may also present in decay of an artery from

any cause; but these, we have said, are 'exceptions'; and we name them rather with the view of enabling the student to form a correct diagnosis, than from any desire to draw unnecessary or nice distinctions.

TREATMENT.—*Hygiene.*—See "Index."

TREATMENT.—*Medicine.*—There needs no argument to prove that in order to treat it with anything like success the cause or causes must be understood. Does the bleeding arise from the rupture of an artery, through accident, over exertion, kick, blow, or violence of any kind, or from decay of an artery, abscess, tumour, or scirrhus? Is the discharge excessive or scanty, mixed with *food*, *mucous*, *sanies*, or *pus?* If it arise from violence, or the rupture of an artery from any cause, and is copious, prescribe—

℞ Tincture Capsicum (Cayenne) ..... Half ounce.
Rad. Tincture Bistorta (Bistort root) ..... Half ounce.

In teaspoonful doses every ten minutes until the discharge is arrested.

Enforce quiet, in order to allow time to repair the injury, and as a daily medicine prescribe—

℞ Trillin ..... Thirty grains.
Zingiber (Ginger powder) ..... Thirty grains.

Mix, divide into twenty parts, and take one part three times a day.

The "Digestive Food" should be taken freely and the bowels attended to.

We have to bear in mind that the injury must be repaired, and that time and care are necessary, or it may terminate in abscess or scirrhus, which is not uncommon with patients advanced in years.

If the discharge is scanty, and mixed with food or mucous, we may conclude that it arises from congestion and irritation, in which case it will without doubt be a concomitant of some other disease, which it will be necessary to understand and treat. To arrest the hæmorrhage, however, must be the first consideration, although there is no necessity to resort to violent treatment in cases of this kind. Cure the original disease, from which the bleeding arises, and the latter will cure itself. Prescribe—

℞ Trillin ..... Twenty grains.
Stillingin..... Ten grains.
Capsicum (Cayenne, in powder)..... Twelve grains.

Mix, divide into twenty-one parts, and take one part three times a day.

Should the liver be sluggish, which may be known by the colour of the skin and eyes, the stomach disordered, or the patient suffer from chronic disease of any kind, treat for it, whatever it is, at the same time. If the blood is mixed with sanies, and the discharge is offensive, we may fairly conclude that the stomach is in a state of ulceration, in which case see *Ulceration and Perforation of the Stomach*, pages 409 to 411, and treat it accordingly.

We need add little to what has been said in order to understand the pathology of *Hæmatemesis;* nor need we remind the student of the fact, that as the life depends upon the blood, anything that interrupts, obstructs, or deprives any part of the system of its supply, more or less "interrupts, obstructs, and deprives" the body of life.*

DYSENTERIA *(Dysentery, Bloody Flux.)*

Description.—This disease is more common in hot climates than in this country, and often becomes as destructive to armies as gunpowder, which is doubtless destructive enough when "the tug of war" is at its height. It assumes a variety of forms, from the slight discharge of bloody mucous, with a relaxed condition of the bowels, to the malignant and putrid disease of prisons, ships, hospitals, barracks, and camps; and has been known in every age in all civilized countries.

Causes.—Exposure, poverty, impure and insufficient food, stagnant water, unripe fruits, tainted fish, sleeping in ill-ventilated rooms, camps, hospitals, barracks, over-crowding, and exhalations from decaying animal and vegetable substances.

Dr. Copeland, speaking of *Dysentery*, says:—"Of the influence of exhalations from animal bodies in a state of decomposition, in causing the low forms of dysentery, I could produce, if my limits would

* The old treatment is iced drinks, pounded ice applied to the pit of the stomach, dilute sulphuric acid in combination with tincture of opium, pilulæ, hydrargyri, and saline purgatives.

admit, numerous proofs. One of the authors of the article *Dysentery* in the *Dictionaire des Sciences Médicales*, states that, having been detained on horseback in a field of battle in August, 1796, where several hundred men and horses lay in the first stage of decomposition, he was seized with a dangerous dysentery on the following day; that three out of four who accompanied him were similarly affected; and that his horse died of the same disease soon after. Similar facts are adduced by ZIMMERMAN, OSIANDER, DESGENNETTES, and others. Of the agency of impure water, in producing dysentery, proofs are likewise numerous. I have myself seen several instances, in a warm climate, where it was the cause of the disease being endemic there. In temperate countries, waters containing decayed animal matters, or an excess of uncombined alkali, cause diarrhœa more frequently than dysentery, or the former passing into the latter; but in warm climates, especially where water is collected and preserved in tanks, and in autumn, after warm summers, in cold countries, *Dysentery* is the most common result. The water of the SEINE at Paris, from this cause, often produces the disease; and Dr. BARRY states that such of the inhabitants of Cork as used the water of the river LEE, which receives the contents of the sewers, and is, moreover, brackish from the tide, are subject to a very fatal dysentery, and that at the time to which he especially refers, at least *one in three* of those affected died of it. I have no doubt that the dysentery epidemic in LONDON during several successive autumns after the Great Plague, was owing to the same causes, as well as from the exhalations from the burying grounds which received the bodies of those who died of that pestilence; and the prevalence of the disease in besieging as well as besieged armies is caused by the exhalations from the decomposition of the dead; by the impure state of the water, from decomposed animal matter carried into it; by night exposure, irregular living, deficient food or clothing, and the other contingencies on encampments and operations in the field; and by crowded and ill-ventilated barracks, &c. The frequent occurrence and fatality of dysentery in fleets, in former times, evidently arose from the putrid state of the water and the foul and stagnant air between decks, sometimes breathed by several hundred persons. During the slave trade *Dysentery* was, and even now is, among the numerous small vessels engaged in this disgusting traffic, the chief pestilence; one half of those conveyed in these floating receptacles of misery, on some occa-

sions, having died of it during the passage across the Atlantic. It may be here mentioned that the dark races, particularly negroes, are more liable to *Dysentery* than any other disease; that it assumes an extremely low or putrid form in them when confined in ill-ventilated situations, and that when a number even of those in health are shut up in such places, the cutaneous secretions, which are so abundant and offensive in these races, accumulate in and vitiate the surrounding air, so that if it be not frequently renewed the systems of those thus circumscribed are thereby infected, and instead of an infectious *Typhus*, which would be the result in the European constitution, a *Putrid Dysentery*, spreading rapidly through all breathing the impure air, is developed. I had, in 1817, an opportunity of witnessing what I now state. The disease is considered by the native Africans as infectious as small-pox, and is dreaded by them equally with it; those two being the most fatal diseases to which they are liable."

We have quoted thus freely, not only with the view of showing the causes of this disease, but for the purpose of impressing the subject deeply upon the mind, and under the hope that it may assist to prove the truth of our views regarding the true character of disease, and remove much of the mystery which at present envelopes it. How much of the disease and mortality that obtains in our thickly populated cities and towns arise from similar causes must be evident to all who are not dead to the force of argument and facts; and whether the more fatal disease of dysentery, small-pox, or typhus prevail, or whether it assumes an epidemic or endemic form, or puts on a mild or malignant aspect, the root of the evil can be clearly traced to our hygienic, sanitary and social shortcomings, and only as we understand this, and work it out individually and collectively, can the evil by any possibility be mitigated. As healers of the sick, it is our privilege to teach the causes of disease, and enforce, by example and precept, the truth upon those who are called to wield the destinies of our country.

Diagnosis.—Griping pains in the bowels, loss of appetite, thirst, furred tongue, constant desire for stool, nausea, vomiting, with bilious diarrhœa. As the disease advances, the countenance falls in, and becomes pale, the motions relaxed, or knotty, slimy, offensive, and bloody. The urine thick, dark coloured, and scanty, the patient restless and anxious.

These symptoms characterise the form of the disease most common

in this country, although it now and then puts on the more malignant type, in which case it is accompanied with typhoid symptoms, violent headache, extreme gripings, tenesmus, or constant straining at stool, offensive breath, delirium, petechiæ, wasting collapse, and death; or it may gradually give place to a chronic condition, become a concomitant of some other disease, and continue for months, or even years.

TREATMENT.—*Hygiene.*—See "Index."

TREATMENT.—*Medicine.*—In this, as in all other forms of disease, it is necessary to understand the causes before we proceed to the treatment. We know, for instance, that congestion, or inflammation of the mucous membrane of the large intestines, arising from a vitiated condition of the blood, is the primary cause of the disease, and as a consequence, ulceration, or more or less decay of the capillary vessels which convey their life-sustaining influence to the parts. In what way, we ask, should the difficulty be met? The answer is obvious—renew the blood, carry it to the parts affected, and you arrest at once the progress of decay. We are speaking, be it remembered, of simple *Dysentery*, and not of the complicated diseases of which it may be a concomitant. Prescribe—

℞ "Digestive Food" ..... Two drachms.
Boiling New Milk..... Half pint.

Mix, and take when sufficiently cool, after which put the feet in warm water for about five minutes, and prescribe—

℞ Eupatorium Perfoliatum (Boneset herb, dry) ..... Half ounce.
Lobelia (herb and seed) ..... One drachm.

Infuse in a full pint of boiling water, let it stand covered for twenty minutes, after which strain, and give in wineglassful doses every ten minutes, until the whole is taken.

This will act as an emetic, and, with the addition of the Ulmus Fulva, or "Digestive Food," two or three times daily, as *enemata*, will arrest at once the progress of the disease, and render the cure comparatively an easy affair.

As the primary treatment, it must be carried out, however, or the case will be considerably prolonged. Prescribe—

℞ Podophyllin ..... Two grains.
Geraniin..... Twenty grains.
Zingiber (Ginger powder) ..... Thirty-eight grains.

Triturate or mix well, divide into twenty parts, and give one part three times a day.

As a daily drink prescribe—

℞ Polygonum Bistorta (Bistort powder)..... Two drachms.
Calamus Aromaticus (Sweet Flag powder) ..... One drachm.
Zingiber (Ginger powder) ..... One drachm.
Powdered Lump Sugar ..... Two ounces.

Infuse in a quart of boiling milk and water, equal parts, let the powder settle, keep warm by the fire, and drink in wineglassfuls during the day.

This simple treatment is most effective in the cure of *Dysentery*, and we speak from an experience of a quarter of a century. We have never known logwood, opium, calomel, acetate of lead, and turpentine plasters, at all necessary: they do, in fact, more harm than good. In truth we can say, that not only in primary or acute *Dysentery*, but in complicated and chronic cases this treatment is equally effective, modified of course to suit the peculiarities of particular cases. What we really require is a knowledge of first principles; with it we are not confined to any single remedy, but have all nature at our command. We know what we do, why we do it, and how to do it, if it is to be done, and also when it cannot be done.

For "Formulas," "Diet Drinks," "Dietetics," &c., see "Index."

DIARRHŒA *(Relax of the Bowels).*

Description.—This disarrangement is most prevalent in summer and autumn, and in mild or simple cases has been considered salutary rather than injurious, inasmuch as it is simply an effort of nature to throw off from the blood effete matters which, if retained, might accumulate and terminate in *fever*, *dysentery*, or some other equally dangerous disease. It is not confined to any particular age or sex, and like other enteric diseases, is dangerous in proportion to its character and malignancy. It may be *Choleraic Diarrhœa*, *(Cholera Infantum*, see page 174 to 178), *Bilious Diarrhœa*, *Mucous Diarrhœa*, *Serous Diarrhœa*, or *Sympathetic Diarrhœa*. There is seldom any danger with it if taken in time; if neglected, however, it may run into *English Cholera*. During the prevalence of *Asiatic Cholera* it should be regarded as a premonitory symptom of that disease, and treated accordingly. See "Index" *(Cholera Maligna).*

CAUSES.—Bad condition of the stomach or liver, eating too freely of unripe or ripe fruits in the summer or autumn, improper food, excessive grief, weakness of the bowels, or as a concomitant of *Consumption*, *Typhus Fever*, worms, or any disease that disturbs the digestive process or vitiates the blood.

DIAGNOSIS.—Griping pains, often attended with nausea, relax more or less constant, motions offensive, watery, or shreddy, sometimes streaked with blood and mucous, tenesmus, &c.

TREATMENT.—*Hygiene.*—See "Index."

TREATMENT.—*Medicine.*—It is seldom there is any great difficulty connected with the treatment of *Diarrhœa* in its "simple" form, that is to say, where it arises from gastric or enteric disturbance, and the system is not broken down by disease or through improper treatment. When it is a concomitant of some other form of disease, however, it may assume, under some circumstances, a serious aspect.

What is the form of the disease which we are called upon to treat must be the first consideration. If it is simple *Diarrhœa*, prescribe—

℞ Lobelia (powdered herb and seed) ..... One drachm.
Capsicum (powdered Cayenne) ..... Ten grains.
Podophyllum Peltatum (powdered Mandrake) ..... Twenty grains.

Infuse in a pint of boiling water; let it stand half an hour in a covered vessel, strain off the liquid, and give in wineglassful doses every ten minutes until the whole is taken.

This will relieve the stomach by *emesis*, and carry at the same time the morbid accumulations out of the system; after which there is little to do but to prescribe as a drink—

℞ Geranium Maculatum (in powder) ..... One drachm.
Zingiber (Ginger, in powder) ..... Half drachm.

Infuse in a pint and a half of boiling milk and water equal parts, sweeten with lump sugar, and drink hot in wineglassful doses throughout the day.

Should the patient be delicate, or the medical attendant prefer to treat it with the "active principles," prescribe—

℞ Zingiber (Powdered Ginger) ..... Ten grains.
Podophyllin ..... Two grains.
Geraniin ..... Six grains.
Mix, divide into six parts, and give one part three times a day.

This, with the "Digestive Food," will meet the indications of any ordinary case. We would recommend, however, wherever it can be taken (and it is so simple that a child will not refuse it), the drink as prescribed in the last formula.

If it is *Bilious Diarrhœa*, prescribe the same as in the first formula for *Simple Diarrhœa*, and—

℞ Hydrastin ..... Ten grains.
Podophyllin ..... Three grains.
Geraniin ..... Seventeen grains.

Mix, divide into twenty parts, and take one part three times a day.

As a medicine prescribe—

℞ Capsicum (Cayenne, in powder) ..... Ten grains.
Hydrastis Canadensis (in powder) ..... One drachm.
Polygonum Bistorta (Bistort, in powder) ..... One drachm.

Infuse in a pint of boiling water, in a covered vessel; let it stand until cold, strain off the liquid, and take a wineglassful, cold and unsweetened, four times a day.

If it is *Mucous Diarrhœa*, prescribe the "active principles," as in the last formula for *Simple Diarrhœa*, using the "Digestive Food" freely.

Serous, *Fibrinous*, and *Sympathetic Diarrhœa*, may also be treated in the same manner, with the addition of an injection of Ulmus Fulva daily. The medical attendant will bear in mind that astringents should not be used in any form of *Diarrhœa* until the stomach and intestinal canal have been relieved of their morbidity, not that it is necessary to administer "emetics" in every case, but when the tongue presents a furred appearance, and the system has not been reduced by previous disease, it is the most effective treatment that can be employed.

COLICA. *(Colic.)*

Description.—This is a contraction or spasm of the muscular coat of the intestines, from the accumulation of hard, intractable substances that have passed from the stomach unprepared or

unfitted for chylification. It is characterized by severe pain around the navel, and is distinguished by the absence of fever, and from the relief obtained by compressing the upper portion of the body upon the abdomen. It assumes a variety of forms, such as *Flatulent Colic, Hysteric Colic, Bilious Colic, and Painters' Colic.*

Causes.—Accumulation of irritable substances in the intestines, long-continued costiveness, flatulency, bilious accumulation, impacted fæces, worms, metallic or lead poisoning, strangulation of the bowels, or obstruction of any kind.

Diagnosis.—Severe pinching pains, accompanied with constipation, flatulency, distension of the stomach, vomiting of bile, spasms, or contraction of the bowels.

Treatment.—*Hygiene.*—See "Index."

Treatment.—*Medicine.*—The first indication is to remove the pain, and this can be best done by relieving the intestines of the ingesta or irritable accumulations. We recollect being requested, not long since, to see a mechanic who had been suffering for several days from *Bilious Colic.* The paroxysms were very severe, and although he had been physicked freely by his club doctor, he could obtain no relief. We ordered the feet to be put at once into a strong infusion of *mentha* (peppermint), and prescribed at the same time—

℞ Infusion of Mentha (Peppermint herb, dry) ..... Half pint.
"Digestive Food" ..... One drachm.

Mix, sweeten with treacle, and administer as an injection.

There was, we felt assured, much hard fæcal matter impacted in the *transverse colon;* and in order to remove it we gave four of these "injections" throughout the day; we also prescribed—

℞ Podophyllin ..... One grain.
Zingiber (Ginger, in powder) ..... Five grains.

And as much "Digestive Food" as the stomach would admit.

Relief was obtained at once, but it was not until the next day that the 'colon' was relieved of its contents and the man out of danger.

"I'm sure I should have died," he said, "if you had not come to

my relief. It was a queer way of doing too," alluding to the injection; "but it is a capital contrivance. That fellow," speaking of his club doctor, "was killing me by inches." And truly it is "a capital contrivance;" and pity it is that it is not better known and appreciated, not by the medical man only, but by the patient. We have been called to cases innumerable that might have been relieved immediately, but for the delicacy of feeling in regard to its application. A case has just occurred where a female, from close confinement, laboured under severe constipation of the bowels, which culminated in an attack of *Colic*, that might have been removed in a few hours, but for her objections. No persuasion of ours or of her friends could avail; and she remained ill for several days. In the absence of the "injection," which is most important, recourse should be had to friction, and hot fomentations. Prescribe—

℞ Podophyllin ..... One grain.
Capsicum (Powdered Cayenne) ..... Five grains.

Mix, and take in a little roast apple or any other simple vehicle; drink freely of peppermint tea, sweetened well with treacle; apply flannels, wrung out of hot infusion of peppermint, changing them as often as they cool, using between each application friction with the warm hand, lubricated with equal parts of olive oil and spirits of turpentine.

Fomentations of *Artemesia Vulgaris* (Mugwort) or Poppy Heads are equally useful, and may be employed in change. Wherever the enema or "injection" can be administered, however, it should in no case be neglected. In *Bilious Colic* and *Painters' Colic*, as soon as possible after the bowels have been relieved, prescribe—

℞ Eupatorium Perfoliatum (Boneset herb, dry) ..... Half ounce.
Lobelia (herb and seed) ..... One drachm.
Capsicum (Cayenne, in powder) ..... Five grains.

Infuse in a pint of boiling water, sweeten with treacle, and give in wineglassful doses until the stomach is freely vomited.

This will excite diaphoresis, equalize the circulation, and throw off through the skin the effete serum of the blood.

We are to bear in mind that in long-continued stubborn cases of constipation the lower portion of the *descending colon* and *rectum* are often impacted with hard fæces, and that it will be all but impossible, without the enema, to relieve the bowels in less than forty-eight hours, or even more. Common sense, therefore, should teach us its value.

The *Ulmus*, or Slippery Elm, is both nutrient and demulcent; and although it contains no narcotic property, its effect in relieving pain is superior to *opium* or *hyoscyamus*, and free from the objections that apply, even under the most favourable circumstances, to these poisons.

It may be necessary to observe that in cases where the bowels are free from constipation the treatment should be preceded by the emetic; and wherever the *enema* cannot be administered, and the bowels remain stubborn, the formula of "Podophyllin and Capsicum" may be repeated during the first twelve hours, and also, if necessary, about the twenty-fourth hour, between which, or soon after, the most stubborn cases generally yield.*

HÆMORRHOIDS *(Piles)*.

Description.—This is a very troublesome complaint, but free from the dangers that attend very many other diseases. *Piles* arise from prolapsus and inflammation of the inner lining of the bowels, and are divided into "external" Piles, and "internal" or "blind" Piles, consisting of small tumours, either within or without the rectum.

Causes.—They are common to all classes, particularly to luxurious feeders who lead inactive lives, to men and women engaged in sedentary employments, drinkers, smokers, dyspeptics, and women during pregnancy.

Diagnosis.—(External.) Heat, itching around the anus, protrusion of red circular painful tumours filled with blood, which discharge upon going to stool.

* There is, or rather was, a form of this disease commonly known as *Devonshire Colic*. It was similar in all respects to *Colica Pictonum*, or *Painters' Colic*; but it has long since died out, as other diseases do when the causes are removed. It was for a long time presumed to be caused by cider, which is made and drank freely in all parts of the county, but it was at length discovered to arise from the action of malic acid, or apple juice, upon the lead with which it was common for cider-makers to line their vats. A portion of the metal was thus absorbed and formed into "acetate of lead." A medical gentleman, by the name of Baker, a native of the county, was the first to publicly expose the cause of the evil, after which it was removed, and the disease as a consequence has ceased.

DIAGNOSIS.—(Internal.) Pressure and pain within the rectum, constant desire and discharge of mucous or blood when going to stool, pains in the back, *dysuria*, or painful micturition.

TREATMENT.—*Hygiene.*—In this, as in all diseases, the first consideration is to discover the cause or causes, which having found, lay them aside. We have never found any difficulty in curing *Piles*, whether 'external' or 'internal,' and one reason of this is because we always enforce abstinence from the habits out of which they arise.

TREATMENT.—*Medicine.*—(External.) Bathe the parts night and morning with a strong infusion of Yarrow or the Sanicula Europœa (wood sanicle), as hot as it can be applied, after which wipe the parts dry with a soft warm cloth, and apply the "Pile Ointment" (see "Index"), spread on a bit of soft cotton lint. Prescribe—

℞ Rheum Europœa (English Rhubarb root, dry) ..... One ounce.
Polygonum Bistorta (Bistort root, dry) ..... One ounce.

Crush the roots, and boil (in a covered vessel) in a pint and half of water down to a pint; let it cool, strain, sweeten with coarse sugar, and take a wineglassful three times a day.

Should the bowels not act moderately free, prescribe—

℞ Compound Powder of Leptandrin ..... One grain,

Once or twice daily, as necessary.

The "Digestive Food" is exceedingly useful, and should be used as freely as the stomach will admit.

Should the medical attendant prefer to treat the disease with the "active principles," he can prescribe—

℞ Geraniin ..... Fifteen grains.
Podophyllin ..... Five grains.
Hydrastin ..... Ten grains.

Mix, divide into twenty parts, and take one part three times a day.

Eat freely of roast apples, or boiled apples and milk; avoid spirits and alcoholic drinks of every kind. The ordinary brown bread, or wheat bread with the bran in it, is preferable to fine white bread; treacle is also preferable to butter, with stewed apples and rhubarb in change.

DR. BEACH publishes a letter from a gentleman, by the name of

HIGBIE, which we quote as follows:—"The article to which I would call your attention is the oil of the Erigeron Canadensis, which I regard almost as a specific in *Hæmorrhoids*, either external or internal. My method of using the remedy is to give from six to twelve drops, morning and night, in a little milk, after having first given some mild chologogue medicine, for the purpose of freely moving the bowels. The *Piles* are then to be anointed with the oil, when down: and for diet I direct unbolted bread for the principal food until a cure is effected."

We give this not upon our own recommendation, having never used the 'Erigeron' for the purpose named. KING says it is too acrid to be used alone externally, and recommends it in combination with "goose oil or some similar substance."

TREATMENT.—*Medicine.*—(Internal or blind *Piles.*) The same treatment without the "Infusion of Sanicle," but in its stead a Local Steam Bath of the Yarrow, combined with Artemesia Vulgaris (Mugwort). Put two ounces of each of the herbs into a long circular pan, sufficiently large to sit upon; pour one gallon of boiling water over them, cover with a coarse towel, sit upon it as hot as it can be borne, the 'steam' passing through the towel.

The same herbs or infusion can be brought up to boiling point and used several times; and if the protrusion can be reached, it will be well to pass a little of the "Pile Ointment" up the rectum. There will be no difficulty in doing this if care is employed. Just a bit of soft cotton lint placed as a tight cover over the end of a bit of graduated rounded stick will answer every purpose. For "Pile Ointment" and "Pile Powder" see "Index."

ICTERUS *(Jaundice.)*.

DESCRIPTION.—This disease is commonly a concomitant of some form of *hepatic* or *gastric* disarrangement, and as a consequence is rarely idiopathic. It is not confined to any period of life nor to either sex, and arises either from biliary redundancy, obstruction, calculi, or concretion of the bile. The function of the liver is to secrete the 'bile,' which is conveyed into the duodenum by the *ductus communis choledochus* or principal 'duct' passing immediately from

the gall bladder; anything, therefore, that obstructs its free passage induces or sets up the disease.

Causes.—Indigestion, constipation, obstruction from concretion, or hardening of the bile, inflammation of the liver, stricture of the gall 'duct,' impacted calculi or gall stones, or anything that prevents the free passage of the 'bile' to the intestines.

Diagnosis.—Yellowness of skin and conjunctiva, irritation or tingling sensation, with a gradual increase or deepening of the 'yellow' into a kind of saffron-like or deep-green colour. It is accompanied with despondency, watchfulness, or nausea, severe pains in the stomach or hypochondriac region, bitter taste in the mouth, constipation or clay-coloured motions, a furred jaundiced tongue, shivering, loss of appetite, dark-coloured urine, exudation from the skin, which stains the linen and produces a faint unpleasant odour.

Treatment.—*Hygiene.*—We have said "medicine is the food of the sick, and should be understood in this light;" we have also said "the wisest physician that ever lived cannot draw the line and say where 'food' began or ended, or what was 'food' or what 'medicine.'" The study of dietetics is a branch of hygiene, whilst 'hygiene' is a branch of 'medicine,' and we feel ourselves a little puzzled just now by calling to mind the case of a poor woman who came to us some years since suffering severely from this disease, which we attributed to obstruction from biliary calculi. She was very poor, and had been under many medical men without obtaining relief. "Have any of them told you the cause of your suffering?" we asked. "No, sir," she replied. "And have you never passed any small substances with your motions?" we again asked. "Not to my knowledge, sir," she replied. "Well," we said, turning to her husband, who was with her, and had been giving her what help he could with herbal medicines, which he appeared pretty well to understand, "take this prescription to any good herbalist you please, or if you prefer it, to our establishment in Leeds; let your wife use it as freely as she can, she cannot take too much in fact, and see me again this day fortnight [we were giving a course of lectures at Cleckheaton], and note," we said, as they left us, "take particular notice of what passes from the bowels."

The prescription was as follows:—

℞ "Digestive Food"
Daily, as freely as it can be taken.

℞ Althæ Officinalis (Marsh-Mallow herb, dry) ..... One ounce.

Infuse in a full pint and half of boiling water, sweeten with treacle, add a half teaspoonful of "Composition Powder," take one half hot when going to bed every second night, and the other half during the day, in wineglassful doses, cold.

In addition to the above we prescribed—

℞ Leptandra Virginica (Black Root, in powder).
Podophyllum Peltatum (American Mandrake, in powder).
Zingiber (Ginger, in powder).

Of each quarter of an ounce.

Mix well, and give thirty grains, or a full half teaspoonful, in the "Infusion of Althæ," every other night.

At the end of the fortnight she came as ordered, and brought as many calculi, or small gall stones, as would fill a teacup.

It was in the early part of our practice whilst we resided at Leeds, and prior to the introduction of the active remedies, that the case occurred, and we have introduced it rather with the desire of illustrating our views of 'hygiene' than for any other purpose. How long these calculi had been accumulating in the gall bladder may be partially guessed at from the fact that they were flattened and formed into irregular, angular, triangular, and semi-circular shapes, from long-continuous pressure.

Treatment.—*Medicine.*—From what cause or causes does the disease arise? is a most important question, which it is necessary to first settle, for our success in curing depends upon a correct diagnosis and the application of proper remedies, upon the knowledge of which and a quickness of perception all our success depends. In the case which we have just named, our diagnosis was the result of an intuitive feeling that the disease must owe its rise and progress to concretion of bile or biliary calculi (gall stones). There were no positive evidence beyond severe pain in the hypochondriac region, wasting of the body, colour of the skin, and scanty clay-like motions. Not a single calculus had been passed, nor had there been any of the very acute excruciating paroxysms common in the passage

of calculi through the gall duct. We were satisfied, however, that they must be there, and the result proved that we were correct.

"What then," we ask, "are the causes?" Whatever they are, it will, we would briefly say, be first necessary to prepare the system for active treatment. Prescribe—

℞ Ulmus Fulva (Slippery Elm, in fine powder) ..... One ounce.
Fine White Sugar, in powder ..... Four ounces.
Cinnamon, in powder ..... Fifteen grains.

Triturate or mix until the whole is well incorporated, put a dessert spoonful into a basin, pour on a half pint of boiling milk, or equal parts of boiling milk and water, if preferred, and use as a diet as freely as the stomach will admit: abstain from tea and coffee, and take in their stead "Composition Powder," as directed, with the meals (see page 384). Prescribe—

℞ Compound Lobelia Pills ..... Five grains.
One after each meal; or if the patient is delicate—

℞ Compound Lobelia Pills ..... Two and a half grains.
One after meals; and—

℞ Compound Powder of Leptandrin (daily) ..... From one to two grains.

And at bed time every second night.

℞ Althæ Officinalis (Marsh-Mallow herb, dry)... ..... Half ounce.
Composition Powder ..... Half drachm,

Infuse in a full half pint of boiling water, in a covered vessel; let it stand twenty minutes, strain, sweeten with treacle, and take in bed as hot as it can be borne.

An emetic as follows may be prescribed with advantage, either in the early part of the treatment, or later, as the system can bear.

℞ Eupatorium Cannabinum (Hemp Agrimony herb, dry) ..... One ounce.
Lobelia (herb and seed) ..... One drachm.
Capsicum (Cayenne)..... Ten grains.

Infuse in a pint of boiling water, in a covered vessel, let it stand twenty minutes, strain, sweeten with treacle, and give in wineglassful doses every ten minutes.

Emesis or vomiting will most likely take place before it is half taken; it should be persevered with, however, to the end, or until free diaphoresis is excited, which should be kept up for some hours, if possible. In this as in all other diseases, the blood is the agent

through which recuperative action can alone be called up, and must not be lost sight of.

In cases where there is sufficient vital force, a "Medicated Vapour Bath" (see "Index"), prepared with the *Eupatorium Cannabinum* (hemp agrimony), may be employed with very great advantage.

As a daily diet raw eggs beaten up in cold water are beneficial. Just a single new-laid egg in a wineglassful of cold water four times daily.

For "Hepatic Pill," and "Pill for Jaundice," see "Index" and "Appendix"; and for *Icterus Infantum*, see pages 156 to 159.

GRANULAR KIDNEY *(Bright's Disease, Albuminaria).*

Description.—We have said when speaking of disease that any organ or part of the body is liable to decay, and that *general* and *local death* are nothing more than a manifestation of the same principle dependent upon similar causes. Ulceration and mortification, or gangrene, whether within the body or without, simply represent cessation of vitality in the parts, whilst "death" represents "cessation of vitality" in the whole body. On referring to *Nephritis*, or *Inflammation of the Kidneys*, page 336, the student will see that we have stated disorganization to be simply a consequence of inflammation unsubdued or removed by resolution. Our words are: "In this, as in all other acute inflammatory attacks, the same principle obtains. The offending cause (whatever it is) must be removed, or the disease can do no other than degenerate or pass into a chronic form, and terminate in disorganization." *Bright's Disease*, as it is called, or the different forms of renal decay, in no way differ from those that take place in other organs, nor can they be recognized in any other light, or if they are, it can only be in their relation to the one immediate cause. We have pointed this fact out in our "description, causes, diagnosis, and treatment" of *Organic Disease of the Heart*, and would merely observe that the *Kidneys*, when in a state of disorganization, like the *Heart*, may be affected in any part. Every organism is subject to decay, but it does not commence always in the same way, nor manifest the same appearance, still it is "decay," call it by what name we will.

Causes.—Inflammation from cold or obstruction of the circulation, drinking cold water whilst in a state of profuse perspiration, excessive use of malt liquors or spirits, improper medicines, gouty diathesis, undue retention of urine, excess of serum in the blood, high living, accumulation of uric acid, renal calculi, or anything that interferes with or obstructs the circulation, upon which the integrity and vitality of the organs depend.

Diagnosis.—Bright, to whom the credit of discovering and describing the pathological character of this disease is given, says,—"It assumes three distinct forms. In the first, the kidney loses its usual firmness, and becomes mottled and yellow in appearance externally, although the size is not materially altered; in the second, the whole cortical part is covered with a granulated texture, and there appears to be a copious morbid interstitial deposit of an opaque white substance, and the kidney is rather larger than natural; in the third, the kidney is rough and scabrous externally, and rises in numerous projections not much exceeding a large pin head, yellow, red, and purplish; it is hard, and inclined to be lobulated; and its texture approaches to a semi-cartilaginous firmness; there appears in short a contraction of every part of the organ with less interstitial deposit than in the last variety." The same writer also says:—"In all cases in which I have observed albuminous urine, it has appeared to me that the kidney has itself acted a more important part, and has been more deranged, both functionally and organically, than has been generally imagined. In the latter class of cases I have always found the kidney disorganized. In the former, when very recent, I have found the kidney gorged with blood; and in mixed cases, where the attack was recent, although apparently the foundation was laid for it in a course of intemperance, I have found the kidney likewise disorganized." In this description we cannot well fail to recognize the peculiar characteristics belonging to the disease for the time being. In *Consumption* the parts disorganized are separated from their continuity, and thrown off by expectoration. In *Mesenteric Disease* and *Ulceration of the Bowels*, the accumulations are carried off through the intestines: and by the peculiar condition of the morbid discharge we understand their true character. The same may be said of the *Kidneys*. In health they fulfil their functions in harmony with the body. In *Bright's Disease* we recognize *Renal Consumption* as a

sequelæ of *Nephritis*, or of some latent predisposition, and the only difference between *Consumption of the Kidneys* and *Consumption of the Lungs*, or any other organ, is that of situation and structure. "Albumen" is a substance common to both the animal and vegetable kingdom, and is combined more or less with the different textures of the body, and more particularly in the glands and skin. In a state of decay, therefore, the decomposing structures are carried off in the urine, hence, in diagnosing the disease, independently of the general appearance of the patient, we find a dull heavy pain in the lumbar region, languor, tenderness upon pressure, swelling of the feet, loss of strength, and wasting of the body, whilst deposited with the urine we have a thick mass of coagulum, not unlike the white of an egg, partially solidified by heat, sometimes mixed with uric acid and bloody matter. As the disease advances, dropsy of the legs and abdomen supervene.

Christison, speaking of *Albuminuria*, says:—"It is a morbid deposit in the substance of the kidney, generally in a granular form, occasioning atrophy of the proper renal structure, and indicated by more or less tendency to diminution of the solids of the urine, generally also by the presence of albumen, and frequently by the supervention of dropsical effusion," which in simple language means that the body wastes—that the albumen of the glands and other parts in connection with the kidneys decay, and is carried off by the urine, or failing in this, it is infiltrated and deposited in the cellular tissue, and finally terminates in *Dropsy*. More than this, however, he tells us, "The disease is remarkable for its variable characteristics: for it is now well established that the albuminous urine may co-exist with and be consequent to germinal *Nephritis*, that it may exist without *Nephritis*, but complicated with *Dropsy*; and again, *Albuminuria* may exist when neither of the preceding diseases is present. Of all the secondary diseases *Dropsy* is the most frequent, and is not unfrequently the first serious indication of renal disease." That this is correct every medical professor of experience very well knows; for we see that under certain conditions of the body *Albuminuria* may be so complicated with other disarrangements that the most skilful would find it difficult to decide by what name the disease should really be called. It is worth while to notice this, because it opens up the general question, and enables us to clearly detect the unity of disease throughout the whole of its variations.

TREATMENT.—*Hygiene.*—See "Index."

TREATMENT.—*Medicine.*—One of the worst cases of *Bright's Disease* that ever came under our notice was that of a young man about thirty years of age, in Huddersfield, by the name of Woffenden. He had been under treatment by the medical men of the neighbourhood for several months, of the new or Homœopathic School, as well as the old, and was given up by all of them. He was brought to Wild's temperance hotel, where we were then staying, in a cab, by a gentleman whose faith in homœopathy was unbounded, but who did not believe a bit in our practice. Of course he knew nothing about it, nor of 'homœopathy,' which is just one reason for the belief and disbelief of the majority who reject things that are unfashionable, however beneficial, whilst they follow after any absurdity that is fashionable.

There was no mistaking the disease, for the kidneys were in a sad condition, whilst the legs, abdomen, and chest, and the whole of the cellular tissue surrounding the lumbar region were so surcharged with serum, that the body appeared like a solid, impacted, hard, unyielding mass. It was with difficulty that he could be got out of the cab. His friend was spokesman, and came full charged with doubts, objections, and pooh-poohs, from all his homœopathic friends, including those of his late medical attendant. We succeeded in making a good impression, however, and undertook the case, but not without great misgiving, which we fairly stated: to the surprise of all parties, however, we were successful in curing him. He was by profession a traveller for some large firm in the town, had drunk freely, and although several years have since passed, he still follows his profession, "as well," as he says to the doubtful and inquiring, "as ever I was in my life." Our treatment consisted of "Medicated Vapour Baths," emetics, diaphoretics, and the active remedies, with proper attention to hygiene.

How to bring up a proper action in the system whilst dealing immediately with the symptoms constitutes the secret of cure in this as in all other disease. Prescribe—

℞ Eupatorium Perfoliatum (Boneset herb, dry) ..... One ounce.
Lobelia (herb and seed) ..... One drachm.
Capsicum (Cayenne, in powder)..... Ten grains.
Podophyllum Peltatum (American Mandrake) ..... Half drachm.

Infuse in a full pint of boiling water in a covered vessel, let it stand; but before giving it prescribe the "Medicated Vapour Bath" of "Eupatorium Cannabinum" (Hemp Agrimony), see "Index;" after which well rub the skin all over, put to bed, apply a stone bottle of hot water to the feet; after which strain off the medicine, sweeten with treacle, and give in wineglassful doses every ten minutes until the whole is taken.

Emesis or vomiting, with free diaphoresis will possibly be excited before it is half taken; persevere, however, to the end, for there is nothing else that is of any avail.

Prescribe the same medicine during the day in wineglassful doses every third or fourth hour, cold; the "Digestive Food" freely, and the "Convalescent Powder" with the meals, instead of tea or coffee. Abstain from spirits, beer, and alcohol, and once a week prescribe the "Medicated Vapour Bath" and the same medicines; that is to say, act upon the whole system, and you cannot fail to reach the disease, for the kidneys can only be restored through the restoration of the body.

Should it be requisite to act more freely upon the bowels, prescribe—

℞	Podophyllin	One grain.
	Eupatorin	One grain.
	Zingiber (Ginger)	Five grains.

Mix, and give at any time when necessary to produce a copious motion.

Active treatment is our only chance, and if the patient is not broken down with years or debauchery, and the system retains vitality sufficient to react, the treatment recommended will meet the indications of the case better than any other; like all disease, however, when too far gone, medicine can do no more than alleviate. This is the universal law as regards healing, which it is wise to ever keep in view, in order that preventive treatment may be better understood in all cases where the kidney or any other organ or part are complicated.*

It will be seen by reference to the note on the next page that a gentleman of some standing in the profession has succeeded in curing

* The old school treatment consists of elaterium, bitartrate of potash, tartrate of antimony, liquor ammonia acetatis, spirits of turpentine, iodide of potass, jalap, citrate of potass, and strict confinement to bed, "without which I do not believe that in this climate we have any chance of cure." * * * *Vide* remarks from Dr. Bright, quoted by W. Beach, M.D., page 429, *Reform Principles of Medicine.* 1855.

Bright's Disease by a totally different method from anything that has been hitherto tried, and although we have no faith in some part of his medicine, we think it probable that there may be something in the diet, and therefore quote the treatment in *extenso*. The case was that of a labourer on the highways, aged fifty-five years.*

ISCHURIA, DYSURIA, HÆMATURIA, AND STRANGURY.

DESCRIPTION.—The above are four distinct forms of the same or similar disease. The first represents "suppression of urine;" the second, "difficulty of voiding urine;" the third, "voiding of

* "Five pints of carefully-skimmed milk were ordered in a case of *Bright's Disease* as a daily allowance, in divided doses of a tumblerful, at intervals of about two hours, commencing in the morning about eight o'clock. Every other article was strictly prohibited. A diuretic, composed of twenty grains of acetate of potash and twenty minims of tincture of digitalis, in an ounce of water thrice daily, was also prescribed. This treatment was strictly continued for a fortnight, with the following result. During the first twenty-four hours five pints of urine were voided; this increased flow continued daily, the specific gravity being 10·10, and the albumen gradually diminishing. The dropsy showed a marked decrease from day to day. At the end of a fortnight there was not a trace of albumen left in the urine—the dropsy had entirely disappeared, and did not return again. The daily quantity of urine was now reduced to three pints, but its density had risen to 10·15. At this period (October 12th) the 'diuretic' was withdrawn and a tonic prescribed, consisting of one grain and a half of sulphate of iron and three grains of sulphate of quinine, in mixture, thrice daily.

"The same quantity of milk was continued daily, but ordered to be taken in equal quantities at four meals, with an interval of four hours between each, and a moderate quantity of brown bread was allowed to each meal. This treatment was continued without change for a month. The urine remained stationary at three pints daily, free from albumen, but with its density raised to 10·20. The patient's strength, previously much reduced, rapidly increased—he gathered flesh, and his countenance became clear and ruddy. On the 9th of November the daily allowance of skim milk was reduced to four pints, taken at three meals with brown bread, while a half pound of beef or mutton, with potatoes and brown bread, was allowed for dinner. The 'tonic' was continued. The specific gravity of the urine, now quite healthy, rose to 10·25.

"On the 28th of November he was dismissed cured [from Sunderland Infirmary.—*Ed.*]. Shortly afterwards he resumed his occupation, and has continued well up to the 10th of March, 1869, when last seen by me."†

† "On a purely milk diet in the treatment of *Diabetes Millitus*, *Bright's Disease*, *Disease of the Supra Renal Capsules*, *Fatty Degeneration*, &c., by ARTHUR SCOTT DONKIN, M.D., Lecturer on Forensic Medicine to the University of Durham, and Physician to the Sunderland Infirmary and Dispensary."—*Lancet, December 4th*, 1869.

bloody urine;" and the fourth, "painful and difficult urine," or "*suppressed*," "*bloody*," "*painful*," and scanty, and "painful and *difficult micturition*." It is easy to see how the one may take precedence of or run into the other—that the same or similar causes may produce either of the four—and that the same or similar treatment may remove either of the four, or the whole.

Causes.—Inflammation or congestion of the bladder, urethra, kidneys, or ureters, exposure to wet and cold, mechanical injuries, stricture, calculi, constipation, spasm, repression or retention of urine from diffidence or other causes, uric acid, acidity of the urine, piles, cantharides, copaiba, mercury, arsenic, or other poisons.

Diagnosis.—Constant desire to micturate or pass urine, total suppression of, nausea, headache, constipation, fever, sharp lancinating or dull heavy pains in the loins, urethra, and neck of the bladder, straining, urine scanty, thick, and sometimes bloody, mixed with pus and uric acid, or with a red or white sandy deposit.

Treatment.—*Hygiene*.—See "Index."

Treatment.—*Medicine*.—What are the causes? what the ordinary condition of the patient?—what age?—what profession?—and what the general habits of life?—are all questions to be considered. By reference to *Nephritis*, pages 336, 337, and 338, and *Cystitis*, pages 338 and 339, the student may gather some ideas which may serve to illustrate or widen the subject out.

Is it *Ischuria* (suppression of urine), *Dysuria* (pain and difficulty of voiding urine), *Hæmaturia* (bloody urine), or *Strangury* (painful and difficult micturition)? To know the different causes and form a correct diagnosis are very essential; for there can be no difficulty in understanding that the treatment for obstruction arising from inflammation, congestion of the bladder, ureters, and kidneys, from exposure, cold, hard drinking, or other causes, must ultimately differ from the treatment of inflammation arising from impacted calculus in the kidneys, ureters, or neck of the bladder, stricture, or other causes. The primary treatment, however, in no way differs, and the first consideration, after determining the true character of the disease, is how to render the most speedy relief. We can afford to allow the

remote causes to stand over, but if we cannot succeed in relieving the patient, the pains and difficulties increase (which are not uncommon) until the system, worn out, finally succumbs, and death closes the scene.

The indications of treatment are to remove the inflammation or congested condition of the parts, relax the spasm, and restore the capillary circulation. Prescribe the "Medicated Sitz Bath" of Artemesia Vulgaris (Mugwort), see "Index," after which an enema, as follows:—

℞ Ulmus Fulva (Slippery Elm, in powder) ..... One drachm.
Sugar (fine powder) ..... Half ounce.

Mix well, and prepare in twelve ounces of boiling distilled or rain water; pass the whole fairly into the bowels about blood warm, and retain it for as long a time as possible, after which put to bed, and prescribe—

℞ Althæ Officinalis (Marsh-Mallow herb, dry) ..... One ounce.

Infuse in a full pint and half of boiling water in a covered vessel, let it stand half an hour, strain, sweeten with treacle, and drink as freely and hot as possible.

The "Digestive Food," which acts both as a nutrient and demulcent, should also be used as freely as possible.

Fomentations of Artemesia Vulgaris should be prescribed, and bandages applied as hot as they can be borne, four or six times double, wrung out of the same, to the painful parts. Prescribe as a gentle aperient and stimulent—

℞ Zingiber (Ginger, in powder) ..... Ten grains.
Turkey Rhubarb (in powder) ..... Ten grains.
Mix, divide into two parts, and give one part night and morning.

Or should it be necessary to act on the system more freely, prescribe—

℞ Zingiber (Ginger, in powder)..... Five grains.
Podophyllin ..... One grain.
Mix and give at any time when necessary.

Hops, poppy heads, elder flowers, mallow, and chamomile may be all used with advantage as fomentations or as "Sitz Baths," "Foot Baths," or full "Medicated Warm Baths," but where the Artemesia Vulgaris can be had it is preferable to any other. Its properties are *diaphoretic*, *anodyne*, *nervine*, *stimulent*, and *antispasmodic*.

The *ulmus enemeta* may be used twice or three times daily, and the "Digestive Food," as already recommended, as freely as possible, nor should the efforts to afford relief be relaxed until it is accomplished. As soon as it is done, attention should be paid to the remote causes. If *stricture*, *calculus*, or *gravel* are suspected, the system must be raised up, in order that such surgical means may be applied as the necessities of each particular case require, nor should the complications be overlooked, for it will be generally found that the whole system is more or less disarranged wherever any of the forms of disease enumerated exist, hence the "liver, stomach, kidneys, and bladder," if implicated, require especial treatment, but not until the symptoms are removed and the strength sufficiently restored to admit it with safety.

Of *Hæmaturia*, or bloody urine, we may briefly remark that it may accompany any of the other three, or be free from the painful inflammatory condition, and altogether confined to some specific cause. If the blood is equally diffused with the urine, and the loins are painful, we may reasonably conclude that the kidneys are at fault, and that the blood proceeds from one or more of the small arteries through decay or from irritation or congestion, rupture from accident, or as a result of renal calculus. If the blood, on the contrary, precedes the urine, or is most copious when the urine is first passed, we may reasonably conclude that the neck of the bladder, or urethra, is the seat of the disease; but if the blood follows the urine, we may then conclude that the fundus, or body of the bladder, is the part affected.

The treatment, no matter from what cause or what part it proceeds from, consists of rest, and the application of such medicines and food as possess healing properties. The "Ulmus Fulva," or "Digestive Food," as recommended in the three former cases, with such part of the treatment as may agree with the *diagnosis* or symptoms. Should there be no pain, however, it will scarcely be necessary to prescribe anything but "quiet," the "Digestive Food," and the following infusion—

℞ Geranium Robertianum (Cranesbill herb, dry) ..... One ounce.
Infuse in a quart of boiling water, in a covered vessel, let it stand until cold, after which strain, sweeten with lump sugar, and give from four to six wineglassfuls daily, cold.

Attend to whatever complications may accompany it; and where

children are the subjects treated, the medicine must be proportioned to their age.

In this, as in *Hæmatemesis*, *Hæmoptysis*, or any internal sanguinous affection, the indication of treatment is to assist the formation of the clot, by giving to the blood the recuperative or healing quality. See *Hæmoptysis* and *Hæmatemesis*, pages 389 to 392, and 414 to 416.

CALCULI *(Gravel)*.

Description.—The many different forms or kinds of *Gravel* that accumulate under certain conditions, in constitutions so predisposed, is truly remarkable. Why this tendency should be so manifest in some, and why others placed under similar circumstances should escape, is just one of the mysteries common to disease. That it is so we very well know, and that it has ever formed a curious subject for study by medical professors in all ages of the world is equally certain. The most common form of *Gravel* is that which consists of fine *red* sand, called "lithic" or "uric acid." The next consists of fine *white* sand, formed by a combination of "phosphate and lime." The next, which is much rarer, is called "oxalate of lime," formed by a combination of oxalic acid and lime. They may exist separate in the states named or in combination with other substances, forming compounds of different kinds, or the accumulated particles may by cohesion form a calculus or stone, and necessitate the operation of *Lithotomy* (extraction by cutting), or *Lithotrity* (extraction by crushing).

Causes.—That the predisposition to different kinds of calculi may be transmitted with the germ, like other morbid conditions, is now a matter beyond dispute, for we find certain idiosyncrasies or peculiarities, often at a very early age, which give rise to calculus, nor is it confined to any particular organ or part, but at times found in the bladder, kidneys, gall bladder, joints, and even in the lungs. That it is generated in the blood and deposited in the particular organs and tissues, for which the different calcareous substances have a special affinity, we very well know, and that the predisposing causes are more rapidly developed at certain periods in some than in others is equally certain; hence we find in rare cases the nucleus developed

even in infancy, although it is far more general after middle age. The immediate causes, although not so positive, are nevertheless by no means doubtful. If a gouty diathesis is present, luxury and want of active employment become the exciting causes, and the same may be said of almost any disease of a chronic character, such as *Dyspepsia*, disease of the *kidneys*, or bladder, &c.

That the inorganic constituents of our bodies are conveyed to the particular structures through the blood is certain; anything, therefore, that reduces the circulation or vitiates it may become an active cause when the balance of health is lost, add to this the constant use of water containing carbonate of lime and other inorganic matters, and it is easy to see how the 'nucleus' once formed may become a base for 'calculus' or stone. We remember the case of a man in Saint Bartholomew's Hospital, London, who some years before had the end of an elastic bougie broken in the bladder whilst being passed for obstruction in the urethra, which formed such a "nucleus," for which he several years after underwent the operation of lithotomy.

Diagnosis.—More or less disarrangement of the digestive organs, wind in the stomach and bowels, constipation, pain in the back, difficulty of micturation or voiding urine, irritation in the neck of the bladder, and itching of the urethra at the end of the glans-penis, deposit of fine *red* or *white* sand, mixed more or less with pus or bloody matter. If a calculus is formed, that is to say if cohesion of the particles has taken place, it may be carried by the urine and lodged in the neck of the bladder or urethra, in which case the pains will be increased in proportion to its character and size, followed with complete or partial cessation of micturition, restlessness, and fever. The same symptoms, more or less, also obtain where gravel is deposited in any large quantity in the bladder, more particularly in the neck or urethra. Severe as these paroxysms often are, however, it is nothing compared to a "calculus," when passing from the kidney through the ureter, and more particularly if it happen to be impacted, in consequence of its size and irregular or ragged edges. In such a case vomiting, fever, restlessness, with pains in the loins, are all increased, and the danger greatly enhanced.

Treatment.—*Hygiene.*—See "Index."

TREATMENT.—*Medicine.*—There is one universal law, which is common alike to all organic life, whether animal or vegetable, heat expands, cold contracts; hence, with the return of spring, as the sun increases its powers, the sap ascends and nature gives forth renewed life. Presuming, then, we are called to treat a case of the kind, our first consideration must be how to afford relief by removing the cause. Is it stone impacted in the kidney, ureter, neck of the bladder or urethra, or is it simply accumulated gravel in the fundus or body of the bladder? This must be decided by reference to the seat of pain, which may be readily done by a brief examination. If the paroxysms are the result of impacted "calculus," prescribe an enema as follows:—

℞ Ulmus Fulva (Slippery Elm, in powder) ..... Half drachm.
Sugar (fine powder) ..... One ounce.

Triturate or mix until the two are well incorporated, and add a half pint of boiling rain or distilled water, let it cool, and administer or throw into the bowels, about blood warm.

Prescribe at the same time a "Sitz Bath," composed of—

℞ Althæ Officinalis (Marsh-Mallow, dry herb) ..... Four ounces.

Infuse in two gallons of boiling water, and when sufficiently cool let the patient sit in it for about ten minutes, after which rub the skin dry, put to bed, and give as a diet a basin of the "Digestive Food."

The indication of treatment is to relax the parts and lubricate the blood, for which purpose the system must be supplied freely with the necessary agents, and be put into a condition to assist the stone in its passage into the 'bladder' or out of the 'urethra,' as the case may be. As a medicine prescribe—

℞ Althæ Officinalis ..... One ounce.
Lactuca Sativa (Garden Lettuce herb, dry) ..... Half ounce.
Capsicum (Cayenne, in powder)..... Ten grains.
Gum Acacia (Gum-arabic, in powder) ..... Half ounce.

Infuse the herbs and cayenne in full three pints of boiling water, in a covered vessel, let it stand twenty minutes, strain, and gradually work up the "gum acacia" in a mortar, with a sufficient quantity of the infusion to form a moderately thick emulsion, return, mix it with the whole, and give a wineglassful, hot, every hour, until the whole is taken or the paroxysms are removed.

Should the bowels require to be relieved, prescribe—

℞ Rhubarb (best Turkey)..... Ten grains.
Ginger..... Ten grains.

Mix, and give in a little of the above medicine, or in any other simple vehicle.

Hot flannels, saturated with infusions of Artemesia Vulgaris (Mugwort), or Althæ Officinalis (Marsh-Mallow), may also be applied to the seat of pain, as bandages, and renewed as often as they become cool; or if a full "Medicated Bath" of the same, either 'aqueous' or 'vapour,' be administered, it will be exceedingly useful.

Should the seat of pain be in the 'ureter,' 'neck of the bladder,' or 'urethra,' much relief will be secured immediately by the treatment recommended, but not until the stone has fairly passed into the bladder or out of the urethra can complete immunity be obtained.

How to remove the *Gravel*, and prevent its accumulation in future, cannot be thought of so long as the paroxysms continue; as soon as they are fairly removed, however, the case must receive further attention.

We have, it will be seen, described the treatment in cases where a 'stone' may be impacted, or during its passage, but where the patient has taken little or no heed, or paid no attention, the "calculus" may have become too large to pass or be of such a character that medicine can do no more than alleviate. In such cases *lithotomy* or *lithotrity* will be necessary. After the operation, however, the patient should be treated medically, or the gravel will accumulate and form 'calculus' again.

In other cases where the '*Gravel*' retains its separate state, the treatment must accord with the general condition of the system as well, for it is very rare to find a case of the kind uncomplicated with some other disease, and this, whatever it is, must be attended to. As a solvent prescribe—

℞ Rad. Eupatorium Cannabinum (Hemp Agrimony root, in powder) ..... Two ounces.

Mix, and infuse in two quarts of soft, rain, or distilled water, in a covered vessel, let it stand until cold, and take a teacupful three or four times a day.

There is nothing that acts with the same certainty upon lithic or uric acid (red gravel) as this. It prevents its cohesion, brings it away with the urine, and where the case is not gone too far, if persevered in, and the general health is attended to, it will partially or wholly dissolve this form of "calculus;" and if the gravel or sand is white, and no cohesion of the particles has taken place, it will be equally effective in removing it; but when 'cohesion' has taken place and the stone is formed, its solvent powers are not equal to the

task, and nothing remains but to endure the torment or undergo one or other of the operations named.

In concluding our remarks upon "calculi," we would once more remind the student that the complications, whatever they are, must be attended to, or he will fail in his object. To remove *Gravel* is one thing, but to cure the 'complications' and 'remove' stone are considerations not to be overlooked in diagnosis or treatment, for upon our knowledge of these the safety of the patient and our own credit depend.

DIABETES MELLITUS *(Excessive Secretion of Urine).*

Description.—There are few diseases that have proved so perplexing as this—few concerning which so little is known—and none that has proved more intractible or difficult of cure. It is no matter whether we turn to ancient or modern authors, the same uncertainty prevails—speculation from beginning to end is the one great characteristic that runs alike throughout their works. Dr. Copeland defines *Diabetes Mellitus* as "urine secreted of a sweet taste and violet smell, generally in large quantity, with great thirst, dryness of skin, debility, and emaciation." He has no faith whatever as to the possibility of cure, and thinks the cases that have been recorded as 'cures' from time to time by different authors have not been genuine or true *Diabetes*, but simply *Diabetes Insipidus* (urine secreted in excess, but free from saccharine matter), or some other form of the disease. "The means of cure," he says, "employed in the disease have been varied exceedingly, according to the opinions entertained respecting its nature. Astringents—the greater number mineral, and some of the vegetable acids have been used, either alone or in combination with other medicines. Gilby, Earnest, Scott, and Brera, have employed *nitric acid*, sometimes with much benefit. I have given it combined with *opium*, the patient at the same time using the warm bath and animal diet. *Some advantage was derived from this treatment for a considerable time, but the disease returned.*

"The *phosphoric acid*, both alone and in combination with, or neutralized by other substances, has been recommended by Nicholas, Guedville, Latham, Sharkey, and Venebles.

"The *sulphuric acid and its salts* have received the sanction of

numerous writers, who have generally prescribed them in combination with preparations of *cinchona*, *aromatics*, *opium*, &c. I have exhibited the acid with the *sulphate of zinc* and with the *sulphate of quinine*, as one part of the treatment adopted in the cases which have occurred to me; *and from a large proportion of the means employed, benefit was derived from it for some time.* The *sulphate of alumina* has been prescribed in a variety of forms, *but most frequently dissolved in whey*, by Dover, Brocklesby, Hertz, Lindt, and many others. But its want of efficacy has been satisfactorily shown by Brisbane, Oosterdyk, and Frank, the last of whom employed it to a large extent in order to test its effects.

"Tonic astringents have received much attention, particularly from Stoeller, Ferrier, Morton, Frank, and others. Dr. Peacock advises a powder, consisting of prepared *nux vomica*, *iron*, *chalk*, *and opium.*

"*Diaphoretics* have been generally recommended, and particularly by Koeber, Stoeller, Wener, M'Cormick, and Marsh.

"*Emetics* have been employed with advantage in some cases by Etmüller, Riverius, Brendel, Michaëlis, Rollo, Wintringham, Watt, and Richter, particularly in the early stages of the disease, in subjects whose constitutions still retained some degree of vigour.

"*Sulphur* and the *alkaline sulphurets* have received a deservedly favourable notice from Anteureith, Redfearn, Bang, Rollo, and Michaëlis. The *hepatised ammonia* was particularly noticed by Rollo. *Cantharides*, either in the form of powder or tincture, exhibited alone or combined with *camphor*, have received a favourable notice from Morgan, Werner, Hertz, Stoeller, &c. Wolf *combined them with cinchona; but* Brisbane, Busch, and Frank *derived no advantage from them.*

"*Opium*, either in substance or combined with tonics and aromatics, or with *astringents*, or with *diaphoretics*, with *camphor*, *valerian*, or with *assafœtida*, or even with the *sulphurets*, according to the varying features of particular cases, is *perhaps* the most generally applicable and beneficial remedy that has beeen employed.

"Mercurial inunction has been recommended by Scott, Lubrock, and others. Brera prescribed it at the same time, with the internal use of *nitric acid*, and Frank with *tonics; he even carried it so far* as to produce salivation. . . . Besides the foregoing, various other reme-

dies have been prescribed. The *cupri ammonia sulphas, myrrh, valerian, assafœtida, tartar emetic*, and *volatile alkali*.

"*Blood letting* in *Diabetes* has been mentioned so far back as the commentaries of ARCHIGENES or AETIUS, and it was noticed as an occasional measure by LE FEVRE and ROLLO. But it is to DR. WATT that we are indebted for the introduction of this practice in its most decided form. This physician advises full and often repeated blood letting, with the view of arresting the inflammatory determination to the kidneys. *This plan has been adopted by* DR. LATTERLY *and others with manifest advantage, whilst it has failed with some.*

"*Blisters and external applications* of a derivative and irritating nature have been recommended by RITTER, DESAULT, VAN SWEITEN, WHYTT, and REIDLIN, to be applied chiefly to the loins and epigastrium. FRANK and WEITZ *advise repeated blisterings to the sacrum.* SETONS, ISSUES, AND MOXAS, HAVE LIKEWISE BEEN EMPLOYED IN THE LATTER SITUATION, but I believe without any permanent benefit."

From these quotations we see exactly what is known, what is not known, and what has been done—not a part of the body without or within but has been experimented upon, nor scarcely a single agent known but has been used. *Hap-hazard* from beginning to end has been the game, and death came off the victor.

DR. BEACH says,—"However humiliating it may be to the pride of medical science, we have to confess that we have no sure remedy for *Diabetes*."

MACINTOSH says,—"It is my duty to confess that I know nothing whatever respecting its nature and seat."

These confessions are honest, but we see nothing "humiliating to medical science" in the fact of our incapacity to understand and cure *Diabetes* any more than in that of any other incurable disease. We know that death from truly natural causes is simply a wearing out of the body from age: under circumstances so extremely artificial, however, as those which generally obtain in civilized society, the unnatural are so numerous that they become the exciting causes of so many types or different forms of disease, that the wonder is, not that we fail to understand and treat *Diabetes Mellitus* successfully, but that we do not fail with many more equally difficult. Apart, however, from this, we know that there is scarcely a disarrangement to which the body is liable but may lead to *death*, and were it not so medicine would be an extraordinary art indeed. In treating those forms

of disease, which in spite of us bid defiance to our best efforts, we fear to acknowledge our deficiencies, and go on prescribing remedies in which we have no faith, leaving it to the patient and medical attendant to find out what they ought to know or ought to be told.

Causes.—Hereditary predisposition in this as in nearly all other forms of disease, is doubtless one of the most common among the remote 'causes.' "Dr. Prout has given four instances of this, and Isenflaum states that he knew seven of the descendents of a *Diabetic* patient who died of the malady. Morton, Brisbane, Rollo, Blumenbach, Frank, Storas, and Clarke, also furnish similar facts. *Diabetes* is more common in the male than in the female sex, and in persons who are either past the period of puberty or advanced in years. The true *Diabetes Mellitus* is rare in children; whilst the *albuminous urine, and enuresis* are frequent complaints in them. . . . The *exciting* causes are not so precisely ascertained as the predisposing, and their connection with the origin of the disease not so obvious as could be desired; but the following, acting either individually or in conjunction, particularly in the latter mode, may be considered as most commonly productive of *Diabetes* where a predisposition to it exists, either hereditarily or from visceral disease. Continued or repeated exposure to cold and moisture, drinking cold fluids when the body is overheated, suppression of an habitual perspiration by whatever means, acidulous or fermented liquors, particularly in malt liquors, cider, &c.: the exhaustion arising from excessive evacuations and morbid discharges, or from undue sexual intercourse or great bodily and mental exertions; the depressing passions, such as anxiety, disappointment, &c.; and whatever occasions great exhaustion of the powers of life and assimilation, is sometimes productive of the malady. . . . The *proximate cause* of *Diabetes* is still extremely obscure, although several authors of deserved reputation have endeavoured to explain it. It has been ascribed to a morbid condition of the kidneys. This is the oldest opinion that has been entertained respecting its nature. The Greek writers considered *Diabetes* to be owing to relaxation, debility, and increased irritability of these viscera, the irritability being, as they supposed, the cause of their morbid activity; and the relaxation and debility allowing the more liquid parts of the blood to pass through the excretories without

restraint or change, and consequently in a crude state, like the food in *Lientery* (a form of diarrhœa, in which the food passes either partially or wholly undigested). . . . The disease has been imputed to a morbid action of the stomach, or some of the assistant chylopoietic viscera, and this opinion has derived support from the feeling of heat, pain, and sinking, which is so generally and so early complained of in this disease, as well as from the morbidly increased action of these viscera, particularly of the stomach. . . . Dr. Clarke, and more recently Dr. Marsh, impute the disease in a more especial manner than has been done by other pathologists to the cutaneous surface, which indeed may be viewed as an important organ of the animal economy; and they consider it 'as a sweat driven in upon the kidneys, where this morbid determination keeps up a profuse discharge.' "*

We have introduced the opinions of these great writers with the object of showing the absurdity of speculation where all is uncertain, rather than with the hope of throwing any great amount of extra light upon the disease, for it could not fail to strike the student that every cause named, whether *predisposing*, *exciting*, *remote*, *or proximate*, are equally applicable to almost every other form of disease. This is too obvious to escape notice: it is as necessary, however, to know the weak and uncertain character of a disease as the certain, for it is this knowledge that gives the practical physician his advantage. He may have no no more power than the veriest empiric in curing, but to know what can and what cannot be done is to possess an immense advantage over him who, knowing nothing, deceives himself and others.

Diagnosis.—A constant desire to micturate, excessive in quantity, pale, primrose, or straw coloured, with a faint smell resembling hay, sweet whey, or milk, containing sugar, sometimes in large quantities. The appetite is generally keen, the tongue dry and clammy, white around the edges, with a red clear streak in the centre; gums tender, breath offensive, skin dry and rough, motions hard and knotty. As the disease advances the urine is voided in larger quantities, and the patient becomes weaker daily. The skin is affected in some cases with boils or cutaneous eruptions, the emaciation increases, and the patient sinks exhausted.

* Article *Diabetes*, in *Copeland's Medical Dictionary*.

TREATMENT.—*Hygiene*—See "Index."

TREATMENT.—*Medicine.*—In this, as in all other disease, much depends upon a correct diagnosis, age, condition, &c. If the patient is advanced in years, that is to say past mid-life, and more particularly if the case is hereditary and far advanced, put it down at once as hopeless. It may be relieved and life prolonged, but certainly not cured; presuming of course that it is *Diabetes Mellitus.* If the patient is young, however, and the system possessed of sufficient vitality, it is amenable to medicine and will yield to proper treatment. There are forms of *Diabetes* where no saccharine matter exists, which are more tractable, and being free from this, and doubtless milder forms of the disease, there will be no difficulty in distinguishing *Diabetes Mellitus* from them, nor in determining the chances of cure. That it is more or less connected with indigestion there can be little doubt, and it is in vain that we seek to change the character or diminish the quantity of urine by arresting the morbid functions which give rise to it, unless we can arrest the cause from whence the disturbance originates. That the skin is at fault we know, hence its rough dry harsh scaly character; and that the blood is no longer capable of retaining the serum through which it depends for vitality is equally clear, hence the indications of treatment point to the one general result which we have sought to establish in all other forms of disease, viz., the restoration of the system.

In *Diabetes*, as in all chronic or deeply-seated maladies, it is rarely or never found in an uncomplicated form, hence the lungs and internal viscera, which are always more or less implicated, require careful attention.

DR. COPELAND, from whom we have already freely quoted, says,—"I have scarcely met with a case of this disease which was entirely uncomplicated with pulmonic symptoms; and a similar remark has been made by DR. BARDSLEY. On this account I conceive that the appellation given to the disease by NICOLAS and GUEUDEVILLE, of *Phthisurie Sucree* (Sugar Consumption), to be extremely appropriate. It should, however, be conceded that in many cases, other organs participate in functional and even organic disease, particularly the digestive mucous surfaces and the liver. Indeed it may be often looked upon as a breaking down of the system, often in consequence of

intemperance and illicit indulgences, and exhaustion of the vital energies and assimilative functions, whereby several, or even all of the organs concerned in the perpetuation of life, suffer more or less." Admitting these remarks to be correct, and that they are, all medical men of experience well know, why should we be surprised at our inability to successfully grapple with a disease that from its very nature results from a breaking down or total wreck of all the powers of life? We have said, in speaking of *Consumption*, when complicated with disease of the *stomach* and *liver*, that "nature has quite enough to do even when assisted by every possible means, hygienic and medical, to cure the disease in its uncomplicated form, and that if other organs are implicated failure is not to be surprised at."

Admitting, then, that *Diabetes* is the result of a general breaking up of the vital powers, we see at once the reason why it has baffled the best exertions of the wisest and most skilful of the profession in the past, and why it may also "baffle the wisest and most skilful" throughout all time; nor can we see any exception in this to the principle which obtains in all other forms of disease, and our purpose in considering it so elaborately is that we may at least know why we fail, and console ourselves with the reflection that it has not arisen from our want of understanding, nor from the application of whatever means nature and art could bestow.

Of the duration of the disease, or even of its origin, very little is known. "It generally continues for an indefinite time, according to the suddenness or acuteness of the attack, previous health of the patient, nature of the exciting cause, the form of complication, the diet and regimen prescribed, and the means of cure employed. It is always exasperated during cold and moist weather. FRANK states that it is also worse in autumn. HECKER, THENARD, DUPUYTREN, and the author [DR. COPELAND.—*Ed.*], have known it to continue, with intervals of improvement, for many years; and OOSTERDYCK states that *he treated a case that terminated unfavourably in a few days.* When the issue is fatal, it commonly runs its course in a few months, and is seldom of shorter duration than several weeks. *I believe that the disease frequently exists for a considerable time at least without any sensible increase of the quantity of the urinary discharge, and that it is hence often far advanced before it comes before the physician, and that many cases which have been believed or stated to have been cured, have experienced only a temporary benefit, the malady*

returning in all its severity from the slightest exposure to its more common exciting causes, or to the least want of attention to the requisite diet and regimen. . . . If unchecked by treatment the debility increases, and pulmonary symptoms with hectic fever, if they have not already existed, seldom fail of appearing. Occasionally the disease passes into incurable *dropsy*. Not unfrequently the discharge is much diminished and more urinous for a short time before death; and in some instances the patient is cut off suddenly, either by apoplexy, or, as observed by DR. PROUT, by a peculiar affection of the stomach, occasioned by improper food, or by over-distension of this viscus from the excessive quantity of solid and fluid ingesta."

From a careful consideration of the facts connected with the disease, and the opinions of the most eminent in the profession, we shall doubtless be able to treat it with more satisfaction and far greater confidence.

Our experience during a quarter of a century has been pretty extensive; and where we have failed to cure the disease, we have always succeeded in prolonging life and affording relief, although the patients might be far advanced (as all were when we first saw them). In cases of *Diabetes Insipidus*, or spurious *Diabetes*, that is to say, where the urine was excessive but free from saccharine matter, as well as in other excessive urinal discharges (which are often mistaken for *Diabetes Mellitus*), we have been much more successful. We cannot help feeling, however, that failure arises more from the advanced condition of the disease than from its incurability, and that the difficulty is, when cases (whether such as these or any other) come under treatment so very far advanced, to know what part of the system to attack. That the patient must be raised or built up we know, but where every organ is more or less at fault we see at once our position.

What is the true character of the disease, how far has it advanced, what the age of the patient, and what its complications?—are all questions to be considered.

Have we a moderate share of vitality or sufficient strength to warrant us in resorting to active treatment? If so, prescribe a "Medicated Vapour Bath" of Eupatorium Purpureum (Queen of the Meadow), after which use friction freely, or in others words, rub the skin down with a coarse dry towel, put the patient comfortably to bed, and promote, if possible, free perspiration. We use the words

"if possible," because diaphoresis is not so readily effected as in many other cases, particularly when the disease is far advanced, inasmuch as the *serum* of the body is exhausted, hence the blood globules having lost their vitality are incapable of stimulation. The effort must be made, however, and if any permanent good is to arise the skin must be restored; for whenever it ceases to act there is *death* in it, as there is in every other organ, and all that we can do, if this is not accomplished, avails us little.

We have already prescribed the "Medicated Vapour Bath," and sent our patient to bed, can we now venture to prescribe an emetic? is a question to be settled. If we can it will be proper treatment, for there is nothing so well calculated to rouse up the dormant energies and renew the action of the skin; but if the system is exhausted, as is too often the case, it will not be prudent to order it. We presume there is sufficient vital force, however, to warrant us, and prescribe—

℞ Eupatorium Perfoliatum (Boneset herb, dry)..... Half ounce.
Lobelia (herb and seed) ..... Half drachm.
Capsicum (Cayenne, in powder) ..... Five grains.

Infuse in a full pint of boiling water in a covered vessel: let it stand half an hour, strain, and give in wineglassful doses every ten minutes until the whole is taken.

It will possibly produce the effect before half is *taken*. Give the whole, as directed, however.

Presuming that it is favourable, and the skin can be brought to *act*, the next consideration is to relieve the bowels, for which purpose prescribe as an *enema*—

℞ Althæ, Pulv. Rad. (Powdered Mallow root) ..... One drachm.

Infuse in a half pint of boiling water, mix well, let it stand until about blood warm, strain off the liquid, and add a tablespoonful of linseed oil.

It will be understood that the mucous surfaces of the *rectum*, *colon*, and indeed the whole of the intestines, are incapable of secretion, and that the *enema*, as now prescribed, is better fitted to afford the desired relief than any other. It may be given daily. The skin should also be attended to *daily*, that is to say, it should be well rubbed all over with a coarse towel wrung out of a strong cold infusion of "Rumex Hydrolapathum" (Great Water Dock), or in its absence the common dock, after which it should be rubbed dry, and

every means taken, by moderate exercise, in a dry healthy atmosphere, to promote active circulation. We have found the "dock" roots or leaves equally effective.

To allay inordinate thirst prescribe—

℞ Eupatorium Purpureum (Queen of the Meadow herb, dry) ..... Two ounces.
Rumex Acetosa (Sorrel herb, dry)..... Half ounce.

Infuse in two quarts of boiling water in a covered vessel, let it stand until cold, strain, and drink *ad libitum* (as freely as the patient pleases).

We are to bear in mind that whatever complications exist must be attended to. It will be necessary, therefore, to look closely to these. If the stomach is affected, as it generally is, see *Dyspepsia*, pages 404 to 409, and treat it; if the lungs are affected, see *Consumption*, pages 376 to 389; and if the liver is at fault, see that disease, treat accordingly, and so on throughout. We have succeeded in keeping patients alive for years by carefully attending to the complications in connection with the general treatment.*

* The average quantity of healthy urine excreted daily, Dr. PROUT says, is from 30 to 40 ounces; the former being the average during summer, when the skin is active, and the latter during winter. The composition of healthy urine consists of, organic matter, 29·79; solids 46·60; fixed salts 13·15. The specific gravity is 1·020. In *Diabetes* we cannot, as yet, with any confidence, assign the fault to any one organ. In the earlier days of pathology the kidney was believed to be the organ diseased; but this gland merely strains the sugar through the blood. The stomach, where saccharized starch is absorbed;—the liver, where glucose (starch sugar, diabetic sugar, or the sugar of fruits) is generated, or cane sugar changed into it;—the lungs, where the sugar should undergo combustive destruction;—and the nervous system, which regulates these other functions, have all been severally accused of being *the seat* of the ailment.

Dr. KANE found the specific gravity of one specimen of diabetic urine 1·036, to contain water 913, sugar 60, urea 6·5, salts, extractive and uric acid 20·5.

Sugar was discovered in urine by WILLES about 1674, and is sometimes found in great quantity, forming 50 to 80, or in one case 134 in 1000, so that over 1¼lb. may be excreted; such urine is of a specific gravity ranging from 1·030 to 1·060, and yet of a pale color, being the only condition which produces dense and light colored urine. Its amount is usually from 10 to 12 pints. FRANK found 52 lbs. passed, in one case, in 24 hours. Although clear when excreted it soon becomes turbid, owing to fermentation. The odour is fragrant, like apples or new mown hay, and the taste sweet; patients often remark that it attracts flies. To test diabetic urine one of the simplest methods is to evaporate the urine and digest it in alcohol, the sugar is then formed into crystals, and separates spontaneously.†

† "Mapother's Physiology." London: Longman and Co., 1862.

Diabetes, like *Consumption*, cannot be cured by the active principles alone, it must have volume or quantity; the complications, however, are better met (in connection with the general treatment) by the 'active principles.'

As an hepatic and aperient, prescribe—

℞ Compound Powder of Leptandrin ..... Half grain.

Twice or three times daily.

As a daily medicine, prescribe—

℞ Hydrastin ..... Ten grains.
Eupatorin ..... Ten grains.
Geraniin..... Twenty-eight grains.

Mix, divide in twelve parts, and give one part three times a day.

As a diet, prescribe coarse flour and bran in the form of biscuit, or stale brown bread, a light nutritious diet, and a moderate supply of animal food.

Dr. Beach recommends burdock seed and wild carrot to be prepared as a daily drink, to which there can be no objection.

For "Convalescent Drinks," "Diet Drinks," "Convalescent Food," "Compound Lobelia Pills," "Compound Carbon Pills," &c., &c., see "Index."

ENURESIS. (*Incontinence of Urine*).

Description.—This affection generally arises from a disarrangement of the sphincter or muscular opening of the mouth of the bladder; from spasm, weakness, accident, congenital, or other cause. It is most common to children, and is simply an incapacity to retain the urine, which passes off as it is secreted, through loss of power in the bladder, or involuntary relaxation during sleep.

Causes.—Congenital, or arrest of development in the bladder, seat worms (ascarides), calculus, atony, irritable urethra, drugging, decay of the neck of the bladder; acrid, or saline urine; accidents, spinal irritation, paralysis, spasmodic relaxation of the muscular fibres, &c., &c.

Diagnosis.—Involuntary, or irregular passing of urine; in some

cases constant, in others during sleep only. The former is most common with adults, the latter with children during the night.

TREATMENT.—*Hygiene.*—Where it arises from weakness, as is often the case with children, cold baths (mornings) have a good effect, and should not be neglected. In adults also, where it is caused by relaxation and weakness of the bladder, they may be used with equal advantage.

TREATMENT.—*Medicine.*—Is it an adult or child that we are about to treat—what is the cause or causes, and what the condition of the disease? These are questions to be first settled. If it is from congenital causes, and the patient has passed through boyhood into manhood, without power to control the escape of his urine, we may conclude that it is either from relaxation, deficiency of muscular fibre, or paralysis. If the disease came on gradually, however, after treatment for gonorrhœa, or some urethral disease, we may reasonably conclude that it has resulted from drugging, or maltreatment; but if it is confined to childhood, and takes place during sleep only, we know that it must arise from weakness, spasms, relaxation of the sphincter of the bladder, ascarides, irritable urethra, gravel, or similar cause.

If it is congenital there is nothing to be done but wear a URINAL, or INDIA RUBBER suspender; it is an excellent contrivance, and if properly arranged can be worn with every comfort.

If it has arisen from drugging, stricture, or other cause, surgical aid should be obtained, for medicine without this will avail but little; or if it arise from an irritable urethra, or from the neck of the bladder, surgical aid will assist the cure. In the latter case it will consist in simply introducing a graduated gum elastic bougie, every second or third day, lubricated with a little "compound ointment of sanguinaria." In the former it may necessitate an operation, which a skilful surgeon can alone do justice to.

In simple cases, that is to say, in children, or boys, or girls, where the escape of urine takes place during the night, as little fluid as possible should be given some hours before going to bed, and if the child, from some particular idiosyncrasy or involuntary bodily habit, is found to pass its urine at a certain hour, it should be awoke, taken out of bed, and encouraged to micturate before the mother or nurse retires for the night; it will then contract the habit of waking and look to be taken

out at the regular hour. Older boys or girls should be simply awoke and encouraged to come out of bed for the same purpose. Whipping little children, or even flogging and shaming great ones, is a very foolish habit, which no prudent or wise parent or nurse would ever employ, for it aggravates rather than removes the evil. Attend as ordered to cold bathing, and prescribe—

℞ Geraniin ..... Twenty grains.
Podophyllin ..... Three grains.
Hydrastin ..... Five grains.
Soft, or distilled water ..... Two ounces.

Triturate, or well mix the powders in a small quantity of the water, in a mortar, return it to the bottle, shake up and give one teaspoonful night and morning.

This will be sufficient to meet the case of a child from three to four years of age.

For boys or girls varying from eight to nine years, or from that to twelve, prescribe—

℞ Cranesbill, in powder (Geranium Maculatum) ..... Two drachms.
Rheum Europœa (English Rhubarb root, in powder) One drachm.

Triturate or mix well, divide into fourteen parts, and give one part night and morning in a little cold water, or other simple vehicle.

There is no astringent with which we are acquainted that possesses the same power over the disease, and its harmlessness is its best recommendation. It will be necessary to attend to whatever complications may be present, that is to say, *gravel; acrid*, or *saline urine; mesenteric* or other disease. In the generality of cases, however, the medicine prescribed will meet the difficulty, with the addition of some of the simple diuretic and other herbs, increased or decreased according to age.*

* One of the favourite remedies of the old school is—

℞ Tincture of Cantharides ..... Three drops.
Tincture of Hyoscyamus ..... Ten drops.

"Increased gradually and cautiously, this rarely fails to remove the disease. I have had several cases of this kind which have received immediate benefit and a speedy cure from this mode of treatment." When this fails the writer recommends "Perchloride of Iron," in half drachm doses, three times a day.

W. A. Guy, M.B., page 633, Hooper's "Vade Mecum." London: Churchill and Sons, 1864.

Chapter XIII.

DISEASE OF THE BRAIN AND NERVOUS SYSTEM.

REMARKS.

"ALL SCIENCES HAVE THEIR ULTIMATE FACTS," THAT IS, 'FACTS' FOR WHICH NO OTHER CAUSE CAN BE ASSIGNED THAN THE WILL OF THE CREATOR. THUS IN PHYSICS WE CANNOT ASCEND ABOVE THE FACT OF ATTRACTION *(which operates according to a simple and universal law)*, BETWEEN ALL MASSES OF MATTER; AND IN CHEMISTRY WE CANNOT RISE BEYOND THE FACT OF AFFINITY *(limited by certain conditions which are not yet well understood)* BETWEEN THE PARTICLES OF DIFFERENT KINDS OF MATTER. WHEN WE SAY THAT WE HAVE EXPLAINED ANY PHENOMENON, WE MERELY IMPLY THAT WE HAVE TRACED ITS ORIGIN TO THESE PROPERTIES, AND SHOWN THAT IT IS A NECESSARY RESULT OF THE LAWS ACCORDING TO WHICH THEY OPERATE. FOR THE EXISTENCE OF THE PROPERTIES AND THE DETERMINATION OF THE CONDITIONS WE CAN GIVE NO OTHER REASON THAN THAT THE CREATOR WILLED THEM SO TO BE, AND IN LOOKING AT THE VAST VARIETY OF PHENOMENA TO WHICH THEY GIVE RISE, WE CANNOT AVOID BEING STRUCK WITH THE GENERAL HARMONY THAT EXISTS AMONGST THEM, AND THE NATURAL DEPENDENCE AND ADAPTATION THAT MAY BE TRACED BETWEEN THEM WHEN THEY ARE CONSIDERED AS PORTIONS OF THE GENERAL ECONOMY OF NATURE."*

There cannot possibly be any other foundation upon which to construct or build up science than nature, and the first step towards this discovery is a knowledge of ultimate principles. How the different parts of our bodies act we may, under certain conditions, understand, in the same way as we do that of any other simple function, but *why* they are formed so to act is not for us to know. What may be known is therefore the legitimate end of science, but what cannot be is beyond its domain. Life is the gift of the CREATOR, and although, as an abstract principle, it must ever evade our research, its laws are ever with us; and in order to insure physical capacity or health, individually and collectively, for ourselves and our posterity, we

* "Carpenter's Physiology." Churchill, London, 1866.

are bound to work these laws out. To know the human body physiologically, it is necessary for us to understand it mechanically or anatomically. The brain, spinal cord, and their numerous branches which permeate every organ and part, represent the nervous system in the same way as the heart and arteries with their numerous branches represent the arterial system. Neither, however, have any independent existence, but perform their different functions whether in health or disease relatively with each other, hence it is that the whole body is disturbed when any part is disarranged.

"The nervous system is divided into *three parts*. 1*st*, The *cerebrum* or *brain*, the central organ or seat of the SOUL or MIND; 2*nd*, the *spinal marrow*, or the nervous centre of all the functions of ingestion and of expulsion in the animal economy; and 3*rd*, the *ganglionic system*, or the double chain of nervous knots discovered [found—*Ed.*] by the anatomist within the animal frame, though unknown to others, under the influence of which the processes of formation, nutrition, change, secretion, &c., are carried on. The cerebrum, the spinal marrow, and the ganglia, constitute the whole nervous system. To these correspond the mental faculties, the ingestion and expulsion of *masses*, the internal arrangement, &c., of particles.

"Connected with the cerebrum or brain are certain *cerebral* nerves, the nerves of sight, hearing, smell, taste, and feeling. These nerves take a special course. The OPTIC, or nerve of sight, passes along an opening into the orbit, and to the eye. The other nerves of sense pursue a similar course to their destination. The nerves of feeling or touch pursue their course in a similar manner to their multifarious destination over the human body. A part of this course is within the spinal canal, and they are united with the spinal marrow, from which, however, they may be distinguished by the designation of the *spinal cord of nerves*. This union of the spinal cord with the spinal marrow has been the source of great difficulty in regard to the physiology of the nervous system. For ages the two have been viewed as one, and though glances of the truth have occasionally been caught, their full and perfect distinction, THEIR SEPARATION AND ISOLATION HAVE BEEN THE RESULT OF MY OWN LABOURS. It may be said that the functions of the true and real spinal *marrow* was entirely concealed by those of the spinal *cord*.

"Having proceeded along with the spinal *marrow*, the spinal *cord* of nerves gives off its various branches into the inter-vertebral spaces

in this course. These branches have a double origin, a *posterior* and an *anterior*, one of which, the former, was discovered by SIR CHARLES BELL to be the *sentient*, and the latter *motor*. These combine and are contained within the same neurilemma or sheath, and pursue their course to different points of the cutaneous surface and to the different muscles.

"Such is a simple view of the cerebral system. It is the system of sensation, volition, memory, judgment, in a word, of the mental powers. Its organs are the *cerebrum*, the *cerebellum*, the *nerves of special sense*, the *spinal cord*, of the *nerves of feeling and of volition*.

"Singular enough no part of the masses of this cerebral system is endowed with feeling, or perhaps it is more correct to say, is susceptible of pain on being lacerated, punctured, bruised, &c. If in an experiment on an animal, or from an accident in man, the brain be so treated, no pain is experienced. If even the retina be punctured the patient is unconscious of pain.

"Not only is there the entire absence of pain under these circumstances, but there is also an entire absence of *motion*. The *cerebrum*, *cerebellum*, &c., are *inexcitor* of muscular action. It is the soul, seated or enthroned on the masses, which *feels* and *wills*, and which performs acts of volition through the medium of the cerebrum, &c., as its material instruments.*

"In all that relates to sense and voluntary motion, the function,—the course of the former [feeling—*Ed.*] is uniformly towards the BRAIN, and the latter [willing—*Ed.*] *from* that organ. But there is no necessary (or reflex) connection between the two. Sensation may take place unfollowed by voluntary motion, and voluntary motion may occur unpreceded by sensation.

"Such, then, are the functions of the cerebral system. I now proceed to describe those of the *spinal marrow*, formerly either confounded with them [feeling and willing—*Ed.*], or entirely misunderstood.

"And, in the first place, I may surely be allowed to remark that it is extraordinary that the functions of such an organ,—that a class of functions so obviously distinct,—should not hitherto have been recognized. All the acts of *Ingestion* and of *Expulsion* of animal

* What has been said relative to the susceptibility to pain of the nervous masses does not apply to the nerves of *feeling*. The truth is, the seat of pain is not yet accurately determined.

economy, the acts by which our material being is supplied, the acts by which the species is continued, all, all these, are specially and immediately *spinal* acts.

"The principle of these acts is special, at once distinct and different from mind, and probably allied to electricity. The *mode* of *action* is not *towards* or *from* the nervous centre, but uniformly and invariably BOTH; and the phenomena are not spontaneous, like those of voluntary motion, but uniformly and invariably excited.

"In the first place all the phenomena and functions of the spinal marrow remain when the *cerebrum* and *cerebellum* are removed. In the case of an experiment in which these organs are removed in a young animal, and in that of the anencephalous fœtus, the respiration and the acts of Ingestion and of Expulsion generally continue. These acts, therefore, are not cerebral. If the spinal marrow be absent they cease at once and entirely,—they are, therefore, spinal acts.

"Some of these facts have been observed. They were erroneously referred by LEGALLOIS to sensation and voluntary motion; by others, they were recorded without any physiological inference being deduced from them. It was my fortune first to detect the class of functions, principles, and course and mode of action of the spinal marrow. Neither LEGALLOIS nor SIR CHARLES BELL knew that inspiration was an excited reflex act,—the fact has even been recently disputed by several eminent physiologists.

"If the *cerebrum* and *cerebellum* of an animal be removed, there is never afterwards *spontaneous* motion; but if various parts of the general surface be irritated, certain movements are *excited*. If the foot be pinched or punctured the limb moves, it is generally retracted. Acts of inspiration may be so excited. If the finger be placed within the lips, or within the pharynx, it is grasped by a similar excited action. If the border of a sphincter be touched or irritated, this circular muscle contracts, and the orifice which it guards is closed.

"In all these cases it is demonstrable that the irritation induces an effect which travels along certain incident nerves to the spinal marrow, is reflected by the 'spinal marrow,' and sent along other nerves from this organ to the muscles called into action.

"Two things are therefore requisite to effect a spinal act. There must be an *excitant*. There must be a *nervous arc* continuous *to*,

through, and *from* the spinal marrow, and uniting at its extremities the excitable surface and muscular fibre. I have stated that the cerebral substance is *inexcitor*. The spinal marrow is in this respect in the very opposite condition. The slightest puncture excites the most frightful convulsive movements.

"I discovered that the incident nerves were endowed with this excitor power. The muscular nerves were long ago known to be so, but by means of my discovery I was enabled to explain the mode of action in each *excitor motor arc*. Thus, if we dash cold water on the face or general surface, some condition is excited which travels along incident nerves to the part of the spinal marrow termed the medulla oblongata, and thence by other nerves to the muscles of inspiration. A morsel of food in the pharynx excites the act of deglutition precisely in a similar reflex manner and route.

"All the *physiological* phenomena of the spinal marrow, except one, take place in this excited reflex manner. The exception to the rule is *the tone of the muscles*. This is induced by some constant current from the spinal marrow.

"The *pathology* of the spinal functions may consist in violent reflex actions, as in the case of *Epilepsy*, from gastric, intestinal, or uterine irritation, in *direct* actions from irritation of the spinal marrow itself, as from *Exostosis* within the spinal canal, and in other direct actions excited by disease in the course of motor nerves.

"The *ganglionic* system consists of an external and internal portion. On the posterior root of each spinal nerve there is a ganglion, the function of which appears to me to be to the external limbs what the system generally designated ganglionic is to the internal organs, tissues, &c., viz., the nervous cause of nutrition, secretion, &c.

"The *ganglionic* system may regulate the condition and the acts of mere irritability of the muscular fibre,—therefore the heart, the œsophagus, stomach, and intestines, &c., as well as the minute acts of nutrition and secretion.

"I have only space for one more remark. There is good reason to think that emotion and the passions have their seat in that part of the spinal marrow termed the medulla oblongata, and I think there is reason for thinking that this is also the special seat of pain.

"*Lastly*, a knowledge of the distinct functions is absolutely necessary to understand the diseases of the nervous system. Every day I am witness of this fact. Cases are brought to me as hemiplegic (of

cerebral origin) which have their origin in fact in the sentient or muscular nerves themselves, or both, and are to the limbs what *certain affections of the trifacial* and *facial* nerves are to the face."*

APOPLEXIA *(Apoplexy).*

Description.—If the student will turn to pages 271 to 280, Chapter XI., and read "Harvey on the Circulation of the Blood," the "Remarks" that follow, and the "Theory of Inflammation," he will see that through the facts and general information conveyed, his mind is prepared to understand the numerous forms of inflammatory disease described and treated. In like manner we have placed before him a brief outline of the nervous system. To successfully treat disease, it is necessary not only to know the purpose and functions of the different organs, but their position also; it is not enough that we are satisfied with ourselves; we must, if called upon, be able to satisfy others by clearly calculating the *prognosis* of any particular case from the *diagnosis*. It is of the greatest importance to be able to distinguish in what part of the nervous system the disease is seated, for only in proportion as we understand this can there be any positive security for our reputation.

The same excuse for our quoting so freely from Harvey we now give for quoting from Marshall L. Hall. Both are authorities with which the hypercritical can scarce differ, much less quarrel, and in enlarging upon their theories we may safely retain the foundations, or throw a little reflection upon the superstructure, even though we may not presume to improve them.

"Apoplexy" is a disease of the brain, characterized by a sudden loss or suppression of voluntary motion. It is defined by Dr. Copeland as "a loss of consciousness, feeling, and a suppression of the functions of the brain from defective vital energy, hæmorrhage, and derangement of the vascular system. There are few diseases," he tells us, "which present a greater variety of modes of attack, or which depend upon a greater number of lesions of the organ affected. Its sources, modes of manifestation, and morbid relations are numerous, and many of them difficult of investigation. These circumstances

* Marshall Hall, M.D., F.R.S., on the "Physiology of the Nervous System." Churchill. 1865.

have given rise to various attempts at arranging the phenomena of the disease in such a way as to indicate the relations which subsist between the changes within the head, on which it depends, and the mode and progress of the attack. *Apoplexy* has long been described as consisting of certain forms, which have been distinguished by some authors as the *sanguine* and *serous*, with reference to the nature of the effusion, and which are the distinctions at present in general use." M. Cruveilhier, one of the most recent and best writers on the disease, confines the term "Apoplexy" to the occurrence of spontaneous hæmorrhage in the brain, and divides it into two species,—1*st*, that consisting of a collection of blood in a torn part of the brain, or on its surface, from a ruptured vessel; and 2*nd*, that with sanguineous infiltration into a softened structure,—or capillary exudation into and combined with its substance.

From these quotations we see at once how uncertain are our very best calculations. That *Apoplexy* is the result of lesion or loss of continuity from decay, rupture, or some other cause we know, but beyond this all is at best but speculation.

Causes.—Any and every part of the body is liable to decay, and the brain is no exception, hence *Apoplexy* may have its predisposing causes in hereditary transmission, as other forms of disease. It is most common in the advancing periods of life from fifty to seventy or eighty, particularly where luxurious feeding and want of active employment are the ruling habits. It has long been noticed that persons with short thick necks and florid or plethoric countenances are the most subject to it, although it is not altogether uncommon to find it attack those of spare habit of body. The immediate or proximate causes are, doubtless, a gradual breaking down of the blood-vessels, or some portion of the brain substance, hence extra excitement of any kind may give rise to the attack at any time.

A case came under our notice some few years ago, in London, of a tradesman who had long suffered from pains in the head and general derangement of the *stomach* and *liver*, for which we treated him, and under which he rapidly improved. For full twelve months afterwards we heard nothing of him, until one evening a friend of his, who had been in the habit of helping him occasionally, called to tell us he was dead. He had driven some twenty or thirty miles to a market during the day, and having done a large amount of business went to

bed as usual, after taking freely of some warm herb tea that his wife was in the habit of giving him. There was nothing particular in his appearance, excepting (as she said) that she thought he had taken cold. About one or two o'clock, however, he had occasion to get up, of which no notice was taken, but soon after his wife awoke from hearing a noise, to find him insensible and breathing heavily. She aroused the household, but before he could be got back to his bed the man was dead.

Our friend came to us next day much frightened for the poor wife's sake, who in giving the herb tea, it was presumed, had done something wrong. A *post-mortem* examination was held, at which we were present to render assistance by the desire of the family. We gave our opinion that the cause of death was "lesion of the brain," or "serous effusion," which was found correct upon cutting through the mass. There would have been no necessity for a *post-mortem* had we seen him prior to the attack, but in all cases of sudden death it is doubtless highly necessary.

Diagnosis.—Dr. Copeland has given us the characteristic signs of its growth so elaborately that we cannot refrain from quoting him, for whatever is done must be rather in the way of prevention than cure. "The importance," he says, "of recognizing the approach of this disease must be evident to the practical reader; for judicious measures employed at this period will often succeed in preventing an attack, or will render it less severe, even where they fail in averting it altogether. The most common precursory symptoms are, a tendency to sleep at unaccustomed periods: a heavier sleep than usual, particularly if accompanied with profound, laborious, or stertorous breathing, stridor of the teeth, nightmare, succussions of the frame, or cramps; a lethargic feeling, and drowsiness even during the waking hours; more rarely, unusual wakefulness; pains in different parts of the head, or general headache, or megrim; a sense of weight or fulness in the head, or pulsation of the arteries; incoherent talking, resembling intoxication; a turgid appearance of the veins of the head, particularly of the forehead; lividity, or redness of the countenance; slight or imperfect attacks of epistaxis; loss of recollection; irritability of temper, or unusual serenity or apathy of mind; a disposition to shed tears; suffusion of the conjunctiva; collapsed appearance of alæ nasi; moats floating before the eyes, or dimness of vision

amaurosis, scintillations, or bright shining coruscations before the eyes during darkness; inability to follow the line of reading; double vision, or a sharper sight than usual; difficulty in shutting or opening the eyes; noises in the ear; dulness of hearing; a sensation of an unusual fœtor; dryness of the nostrils; continued sneezing; frequent yawning; singultus, (hiccough); stammering, or indistinct articulation; the substitution of one word for another, or forgetfulness of words and names; difficulty of swallowing, or fits of coughing upon deglutition; lœpothymea (falling away of the mind; vertigo, or a sensation approaching to faintness; difficulty of writing, or inability to spell words, or to follow a straight line; torpor, or numbness, or pricking of the extremities; itching, formication, or creeping on the surface; pains of the joints or limbs; a feeling of fatigue upon slight exercise; slight or partial paralytic affections, chiefly of the muscles of the face, or confined to a limb or part of a limb; drooping of the eye-lids, imperfect utterance, slight distortion of the mouth, unsteady or tremulous gait, tripping up on ascending or descending a stair or in walking, difficulty of voiding the urine, &c."

That many of these signs may be found connected with other forms of disease we know: but, taking into consideration the age and habits of the patient, his previous mode of life and hereditary tendencies, they serve as a guide by which we may calculate upon the progress or approach of the disease. There is no particular form of *Apoplexy* to which the premonitory signs quoted especially apply, they are common alike to every disturbance of the brain: but the immediate attack assumes three different aspects. The *1st* is called *Congestive* or *Simple Apoplexy*. The *2nd* is called *Serous Apoplexy*, or congestion with serous effusion. The *3rd* is called *Sanguineous* or *Hæmorrhagic Apoplexy*.

In the first form the patient falls suddenly, without any previous warning, as if from a blow.

The second is preceded by acute pains in the head, sickness, fainting, and loss of consciousness.

In the third a sudden cessation of consciousness, stupor, stertorous breathing, bloodshot eyes, and hæmorrhage from the nose and mouth, give evidence of a rupture or decay of one or more of the arteries.

Kost, speaking of the gradual approach of the attack, or rather of the signs by which it may be known, says, "In some cases they (the

signs) do not continue more than a few hours; in others they occur with occasional intermissions, for many days, weeks, months, or even years. It is often the case, just before the attack commences, that the symptoms become considerably aggravated. In the most violent cases, the attack comes on suddenly, with loss of sensation and motion, the patient sinking almost into profound stupor, which often, or within one hour, ends in death. In less violent cases the sufferer generally lies a number of hours in a state of deep stupor, his breathing is difficult and stertorous, attended with puffing and frothing at the mouth: his eyes, although sometimes immovably fixed, often roll wildly in their sockets, and are much bloodshot; the face is generally flushed and somewhat swollen; the veins in the neck and temples are turgid. The jaws are generally spasmodically closed, and swallowing is always difficult."

Treatment.—*Hygiene.*—In every form of the attack see that there is plenty of breathing room and perfect respiratory freedom, anything, therefore, that interferes with this, whether clothing or any other cause, must be immediately attended to. A proper position and free current of air are the principal requisites, hence the patient should be placed in a sitting posture, with the head properly supported.

Treatment.—*Medicine.*—It will be readily understood from the nature of the disease, that there is little or no hope of cure in the majority of cases. It was formerly the practice to bleed in all forms of *Apoplexy*, but a better knowledge of its true character has taught the majority of practitioners that this is wrong practice.

In examining the various modes or fashions that have obtained from time to time in the treatment of this disease by the ablest members of the profession, one is really bewildered. As in *Diabetes Mellitus*, so in this: not a remedy that could be thought of, nor an application of any kind but has been employed and defended each in turn. At length, however, the conclusion arrived at is that there can be very little success or even hope, more particularly in *Sanguineous* or *Hæmorrhagic* cases, which is doubtless correct, for when any organ has passed into such a condition that the recuperative powers of the system have lost their reparative supply, death follows as a consequence. In *Sanguineous* or *Hæmorrhagic Apoplexy* this is especially the case, and even in the

worst forms of *Serous Apoplexy* it may with equal propriety be accepted.

What is the true character of the disease,—the condition of the patient,—and the immediate cause of the attack? are questions to be considered.

Apart from preventive treatment, which is that upon which dependence can alone be placed, it happens in the majority of cases that the medical attendant is not called until the attack has taken place, and the *Sanguineous* or *Serous Effusion* has permeated the brain substance, and more or less obtained the mastery of life. This should be carefully avoided wherever a predisposition may be supposed to exist, hence exercise in the open air on foot, with cold bathing daily, will be found the very best means that can be employed, particularly with patients of a plethoric disposition. Luxuries of all kinds should be avoided, whether in food or drink. Beer, wine, spirit and alcohol in any form rapidly accelerate the predisposition, and become strong exciting causes. Plain wholesome food in moderate quantities, such hygienic or prophylactic measures as reason and experience warrant in recommending, and which every prudent man may readily and pleasurably apply, are within the reach of all persons in easy circumstances, and may be employed with advantage in every way.

We call to mind the case of a Mrs. Pickles, of Blackburn, as one among many which have come under our notice. She was a lady of excellent mind, but inclined to plethora, purely, as we believe, from want of exercise. It was in vain that we warned her of her danger, and pointed out the necessity of attention to the laws of health, and doubtless one of the difficulties to be overcome is habit. Surrounded with every luxury, it requires much courage to turn to the more substantial duty of exercise, and at the same time to practice abstinence, and secure through these agencies the more robust pleasures of life. Any habit when once established is with difficulty overcome, hence in her case, as with others, she preferred ease and luxury in her well-furnished apartment to change of habit, and paid the penalty in loss of life by *Hæmorrhagic Apoplexy*. We were sent for hurriedly to visit her from Manchester, now about twenty years since, but death was there before us. It was a serious loss, for she was truly an excellent lady, respected and loved by all, but more particularly by the poor. From the time of the attack to her dissolution did not exceed three or four hours.

To talk of curing *Apoplexy*, except in its partial or mildest forms, is preposterous, and we prefer rather to teach what can be done than what cannot.

The active treatment in all cases consists in equalizing the circulation. Prescribe a warm "Medicated Bath" at once for the feet:—

℞ Artemesia Vulgaris (Mugwort, herb) ..... See "Index."

Bathe the surface of the skin all over with the same, but more particularly the upper portion of the spine, after which rub dry, and prescribe an enema, as follows:—

℞ Antispasmodic Tincture..... Half drachm.
Water (tepid) ..... Twelve ounces.

Sweeten with treacle, and inject into the bowels.

The patient should now be put to bed, and bottles of hot water applied to the feet. The following, as an emetic, should then be prescribed:—

℞ Antispasmodic Tincture ..... One drachm.
Water (hot)..... Sixteen ounces.

Sweeten with treacle and give in wineglassful doses every ten minutes until the whole is taken.

However doubtful or severe the case may be, this is the only treatment that can be immediately employed with anything like success. The stomach and bowels must be relieved at once, and there are no remedies so efficient and ready as these now advised; they stimulate the whole system, and call back the circulation to the extremities. As soon as the *emetic* and *enema* have acted, prescribe—

℞ Podophyllin ..... One grain.
Zingiber, pulverized (Ginger, in powder)..... Ten grains.

Mix and give in any simple vehicle at hand, after which raise and keep up gentle diaphoresis. For this purpose prescribe—

℞ Mellisa Officinalis (Balm, herb, dry) ..... One ounce.
Scutellaria (Scullcap, in powder) ..... One drachm.
Capsicum (Cayenne, in powder) ..... Ten grains.

Infuse in a full quart of boiling water, in a covered vessel, strain, sweeten with treacle, and give in wineglassful doses every ten minutes until the whole is taken.

This treatment we have generally found to be followed by success. In the worst cases it can do no harm, and where the struggle is between life and death, no chance should be left untried. The disease

terminates in one of the three following ways. First, by sudden death, or by death after some few hours or days, according to the character of the case. Second, in recovery more or less partial, with the mind weakened, memory impaired, and paralysis, slight or extensive according to the severity of the attack; and Third, in complete recovery.

It will be readily seen, from the nature of the complaint, that the mode of attack and termination are determined by the condition of the brain, and when we state that cases followed by complete recovery are invariably preceded by *vomiting and profuse perspiration*, we see at once the efforts of nature, and wisely prefer to assist rather than retard her efforts.

The indications of cure we thus see, point to the treatment which we recommend. Relieve the stomach, equalize the circulation, and carry the superabundant serum from the blood through the skin and natural outlets of the system. This done, nature will not fail, having done so much, if aided by other simple means, to do whatever else is necessary to convalescence.

The liver, kidneys, and bowels, will require attention, and also whatever complications may accompany the disease, for in proportion as the system can be raised up to a condition of tonic health the chances of its return will be prevented.*

For Diuretics, Tonics, Diaphoretics, Medicated Baths, Convalescent Food, Medicine, &c., see "Index" and "Appendix."

ATROPHY, HYPERTROPHY, SOFTENING, AND INDURATION OF THE BRAIN.

Description.—These are just four different states of the brain which grow out of the general decay of the system, in the same way as other forms of disease. There is not one of them that may not precede *Apoplexy*, or that may not be prevented or removed by similar means. That the brain should decrease in volume may be readily understood by reference to other wasting diseases of the body, for it is

* Treatment.—Bleeding from the arm at intervals, from a small orifice in the semi-erect position * * * the application of leeches and cupping-glasses to the head and neck. Drastic purgatives with croton oil, in doses of one or two drops. * * * Cold to the head if there be increased heat, and blisters to the back of neck, sternum, or legs, and after a time to the scalp.†

† Harley and Guy's Edition of Hooper's "Vade Mecum," 1864.

nourished and sustained by the blood, hence, anything which deprives it of its regular supply, or that impairs it in quality cannot fail to injure the substance which depends for its normal condition upon it. The brain has no independent existence, and can no more sustain its vigour without the blood than any other part or organ of the body.

Hypertrophy of the Brain (or enlarging) is also the result of impaired nutrition and morbid accumulation, hence it is invariably found connected with a strumous diathesis. The same may be said of *Softening of the Brain* (Ramolissement), which also arises from similar causes, and is merely one of many that give rise to *Apoplexy, Paralysis, &c.*

The same may be said of *Induration* (hardening) *of the Brain.* We know why the glands harden, and can easily understand that any particular morbid state of the blood may set up chronic disease or hardening of the brain.

Causes.—Predisposition from hereditary transmission, scrofula, syphilis, deficient nutrition, excessive venereal indulgence, close application to study, confinement, disease of the carotid and meningeal arteries, or anything that reduces the body and deprives the brain of its normal or regular supply of healthy blood upon which, like every other part of the system, it depends for vitality.

Diagnosis.—*Atrophy.*—Gradual loss of strength, fretfulness, mental and physical incapacity, loss of memory, trembling of the limbs, fear, anxiety, vacant expression, pulsation tremulous, heaviness, vertigo, indistinct and irregular articulation, &c., &c.

Diagnosis.—*Softening of the Brain.*—General debility, decline, gradual loss of intellect, speech inarticulate, melancholy, timidity, weeping, trembling of the limbs, paralysis, &c., &c.

Diagnosis.—*Hypertrophy.*—Loss of appetite, restlessness, headache, convulsions, vertigo, epilepsy, swelling of the glands of the neck, scrofulous diathesis, &c., &c.

Diagnosis.—*Induration.*—Gradual decrease of physical and mental strength, general incapacity, pains in the head, heaviness about the eyes, convulsions, &c., &c.

TREATMENT.—*Hygiene.*—See "Index."

TREATMENT.—*Medicine.*—If the student has carefully read "Description, Causes, Diagnosis, and Treatment" of *Apoplexy*, he will find no difficulty in understanding any of the four forms of brain disease to which we are now directing his attention, for he cannot fail to see that the latter may be nothing more than precursors of the former, although their terminations may not always assume the same character. Why this should be, we can understand by reference to many other diseases, inasmuch as nearly, if not all, are modified more or less according to years and the peculiar idiosyncrasy of the patient.

In the treatment of either of the diseases now under consideration, we must keep before us the "preventive" part of it, and at the the same time investigate the predisposing and exciting causes, in order that we know what to do and how to do it, and enforce on the part of the patient and those interested strict attention to instructions.

The stomach and the whole of the internal viscera must be carefully considered and duly attended to, for if the brain is to be resuscitated, its morbid conditions must be removed in the same way as other diseased tissues. To propose any distinctive treatment for either is of little or no use, we shall therefore content ourselves by saying:—Restore the tone of the system generally; or in other words, renew the blood, and the brain will cure itself.

Like other diseases, however, they are often beyond the reach of cure, and the best that can be done may do no more than alleviate. Indeed it can scarcely be said that there is any certainty whatever in the diagnosis of many forms of brain disease, they are so exceedingly obscure, and when we add that there are disarrangements such as *hydatids*, abscesses, cysts, and fungus growths, that may present no recognizable symptoms of cerebral disease whatever, we see at once the difficulty. There is no secret of cure apart from the general restoration of the system, and when this fails, whatever form the disease may assume, its cure must fail also.

For Convalescent Drinks, Medicated Wines, &c., see "Index" and "Appendix."

PARALYSIS *(Palsy).*

Description.—It will be readily understood by reference to "Apoplexy" and the diseases of the brain already treated, that this is not an idiopathic or distinct disease, but simply a sequelæ or result of some previous attack either of the brain or spinal cord. It assumes a variety of forms, each of which is characteristic of the particular part affected.

When it is confined to one side, or the lateral half of the body, it is called *Hemiplegia;* when the lower half only is affected, or any part of the upper, if the brain is not impaired, it is called *Paraplegia;* when the whole body is more or less affected, it is called *General Paralysis;* when a part only is affected, it is called *Partial Paralysis;* when the *tongue, bladder,* or other organ is affected, it is called *Paralysis of the Tongue, Bladder,* and so on throughout; when the terminal branches of the nerves only are affected, it is called *Peripheral Paralysis.*

Hemiplegia is distinguished by the following varieties:—1*st*, *Cerebral*, originating in the brain; 2*nd*, *Spinal*, originating in the spinal cord; 3*rd*, *Epileptic*, following as a sequelæ of *Epilepsy;* 4*th*, *Hysterical*, accompanied by *Hysteria;* and 5*th*, *Choreic*, accompanying *Chorea*, or *St. Vitus' Dance.*

Causes.—We see from these varieties that *Hemiplegia*, is generally the result of some lesion, decay, rupture, or loss of continuity in some part of the brain; whilst *Paraplegia* generally results from similar causes in the spinal cord, of which there are two kinds,—1*st*, *Organic;* 2*nd*, *Constitutional.*

Diagnosis.—*Cerebral Hemiplegia.*—Loss of muscular power on the whole of one side or lateral half of the body; face more or less contracted, drawn on one side, and void of expression; loss, either partially or wholly, of the power of articulation; temper irritable; circulation irregular and weak; arm and leg all but useless, or moved with difficulty; bowels generally constipated; mind or intellect more or less weakened. It is most common on the left side; and loss of 'power' in the generality of cases is sudden, hence it is commonly called "a stroke;" although it may now and then come on gradually.

Spinal Hemiplegia is much rarer than *Cerebral*, and neither the face nor intellect in this form of the disease is affected.

Epileptic Hemiplegia.—This is not a constant-settled condition of *Hemiplegia*, but simply a result of the attack. It generally follows, and lasts sometimes for a few minutes only, at other times for hours, or even days.

Hysterical Hemiplegia is free from some of the signs that accompany other forms of the disease, and the face and speech are not affected, but the leg is generally very seriously implicated, hence it is dragged along the ground completely powerless.

Choreic Hemiplegia, like *Epileptic*, is irregular, and occurs generally on that side of the body most affected after the severer symptoms have passed.

Paraplegia may either come on gradually or suddenly, or may be severe or slight, according to the condition out of which it arose. We have seen that *Cerebral Hemiplegia* is seated in the brain, and that whatever interrupts or destroys the continuity upon which its integrity depends, becomes the exciting cause.

The 'spinal cord,' like the 'brain,' is liable to similar disarrangements, from accidents, inflammation, and other causes; and whenever it is affected, the form of paralysis that follows agrees with the part which is impaired.

When the upper portion of the spine (cervical, or neck) is the part affected, deglutition becomes difficult, the arms are paralysed, respiration is affected, and there is a feeling of tightness around the chest. When the back or middle portion (dorsal) is the part affected, the paralysis affects the heart, pneumogastric nerves, and internal viscera, hence the convulsive paroxysms, palpitation, tightness around the abdomen, difficulty of breathing, &c.

When the lumbar portion (lowest part) is the seat of the disease, the legs are paralysed, and the patient loses command of the bowels and bladder; hence retention and incontinence of urine, constipation and involuntary fætal discharges follow.

In some cases the disease, in its *Hemiplegic* and *Paraplegic* form, comes on very gradually, and almost imperceptibly; the final results, however, are invariably the same.

A very peculiar feature in *Hæmorrhagic* or serous effusion of the brain is, that *Hemiplegic Paralysis* almost invariably occurs on the side of the body opposite the side of the affected part.

TREATMENT.—*Hygiene.*—See "Index."

TREATMENT.—*Medicine.*—If the student will turn to pages 345 to 350, and read carefully, he will see that the brain and its membranes are liable to inflammation, and that the seat of the inflamed part or membrane determines the nomenclature of the disease. The same may be said of the spinal cord and its membranes, which are but prolongations of the same. It needs but little knowledge of the nature of disease to understand that, where inflammation is not removed by resolution, *suppuration*, *induration*, *atrophy*, or some other abnormal condition, will be set up, which must ultimately lead to disruption of the organ. This we know in fact is the case, hence the process may commence from an almost imperceptible point, and finally culminate in death. It is to this cause that we are compelled to attribute many cases of *Hæmorrhagic* and *Serous Apoplexy*. We may not always know the precise spot in which the disarrangement is located, but we 'know' it is there nevertheless, and from the manifestation of mind and body we know also the extent of the lesion or injury. Another consideration in the treatment of *Paralysis* is, the structure and composition of the part affected and the reparative powers of the body. The repair of muscular tissue must be altogether different from that of the brain,—hence the difficulties and disappointments that so often attend the treatment of the latter.

Some authors speak of its cure as a matter about which no uncertainties or difficulties exist, and prescribe as if there could be no room for doubt.

KOST, for instance, an American author and practitioner of some repute, speaking of *Paralysis*, says,—"Immediately on an attack of Palsy, the body should be well bathed with the stimulating liniment, which ought to be applied with considerable friction; then the patient, after taking a strong tea of capsicum, should be placed in the Vapour Bath. The heat of the bath must be gradually raised until it is as high as is comfortable for the patient; care must be taken during the use of the bath so as not to raise the heat too high, as the patient will sometimes not be able to judge the temperature from the loss of sensation; and this remark will also apply to the use of hot stones, [or bricks or other hot applications to the diseased parts. —*Ed.*]. After free perspiration is produced the patient must be taken out, and after being well rubbed and dried with a coarse towel, he should have another bathing of liniment, and then be placed in

bed, with a stone [or bottle of hot water—*Ed.*] to the feet. A strong tea, of equal parts of *Capsicum*, *Valerian*, and *Scull-cap*, should be drunk freely, so as to produce a general perspiration. The parts affected should now be well bathed with the *stimulating liniment*, or bathing drops, as often as once in four or five hours; and once a day some of the rubefacient oil, mixed with an equal quantity of extract of Peruvian bark or of quinine, should be applied to the paralysed parts, *and the tract of the nerves leading to them*. This course of treatment should be renewed every day until permanent relief is obtained. It is well to keep the parts warm between the bathings by means of flannels. Rubbing the parts well along the course of the nerves, and also the spine, will sometimes prove very beneficial. In cases of *Partial Paralysis*, a cure may generally be effected by the simple use of liniments and stimulating nerve teas."

Now there are just two forms of *Paralysis* where this treatment will be found effective, and these are *Peripheral Paralysis* and *Partial*, that is to say, where the nerve centres are not seriously implicated; but to recommend a continuous course of *bathing*, *rubbing*, and *stimulating* the peripheral nerves, with the view of repairing the loss of continuity, decay, or rupture, of any part of the spinal chord or brain, for the cure of *Hemiplegia* or *Paraplegia*, is the very extreme of folly.

Dr. Beach, in his work on the "American Reform Practice of Medicine," after prescribing freely, liniments, plasters, and herbal fomentations, relates two cases which he treated successfully:

"My prescription," he says, "for a person I was called to visit with a particular affection of the arm and leg, was as follows:—*Cowhage* sprinkled on *flannel* and bound on the parts, vegetable *counter-irritating* plaster to the spine, *stimulating injections*, *restorative wine bitters*, with the addition of a little *capsicum* and *alterative syrup*, to which may be added friction and electricity.

"I am acquainted with a gentleman of this city who has had several strokes of Palsy, and been cured so as to enjoy at this time comparatively good health. I was also consulted by another gentleman who had an attack of Paralysis of the right side,—there was loss of both muscular and nervous power. I prescribed thus:—A moderate purgative, occasionally followed by the continued use of the *restorative bitters*, into which was introduced the *peroxyde of iron*,

in proportion of half an ounce to a pint and half of the *bitters*. With every dose I directed a *nervine pill* to be taken, and frequently through the day the infusion of *scutellaria*, and externally the *rheumatic liquid*, to be rubbed in on the side paralyzed, to be followed by much friction with the hand. Subsequently, as an auxiliary, the *alterative syrup*, together with an *irritating plaster*, applied along the whole length of the spine,—a strip about four inches wide. The bowels being in a state of partial paralysis [constipated—*Ed.*], purgatives, to which has been added a little of the infusion of capsicum, will frequently be found of much service. *In the case last mentioned the patient had been previously* taking a shower-bath with more or less benefit."

We have quoted thus freely, not to expose the folly of such unnecessary treatment so much, as the want either of candour or knowledge regarding the pathological character of the disease. To cure almost any case of ordinary *Peripheral* or *Partial Paralysis* is by no means difficult, for the brain substance of the spinal axis in such cases is very slightly affected, and like any other tissue will, if the conditions be applied, yield to hygiene and medicine, but to introduce such cases (and the two quoted from Dr. Beach were simply partial) as *Paralysis* without distinguishing the varieties, and leave the student in the dark as to the true character of *Hæmorrhagic* and *Serous Hemiplegia*, which in the majority of cases are beyond the reach of cure, is to deceive and mislead both the inexperienced practitioner and patient, for the treatment recommended, if carried out in its entirety in such cases, as well as in *Hysteric Hemiplegia*, would do a great deal more harm than good. Fancy for a moment the continuous rubbing with liniments and plasters, baths, &c., &c., and the internal use of "capsicum, valerian, and scutellaria (*equal parts*)," with the view of restoring rupture, lesion, decay, or tumefaction, of some part of the spinal axis, from which the paralysis arose.

In all cases of *Paralysis*, prior to treatment, it is necessary to satisfy ourselves as to the seat and form of the disease, and what condition the system is really in, for the cure depends purely upon the reparative powers and the assistance we can give.

"In cases of partial paralysis, Kost says a cure may be effected by the simple use of the liniments and stimulating nerve teas." Of course it may, or by any other means equally as 'simple.' Anything in fact that can be made to give the bias to nature will set up

recuperative action in the blood, upon which the nerves depend for vitality. *Liniments*, nervines, cold baths, tonics, hepatics, or whatever else may agree with the peculiar condition of any one or more of the organs, through the morbid action of which the disease or primary disturbance originated.

Having said this much of the curable, we now come to cases that may be relieved, but not cured: and of these we say,—"Not one but what may become a cause of death, particularly where any of the other organs are seriously impaired." To profess to cure *Paralysis* when the reparative powers of the different organs are incapable of supplying the necessary material is altogether preposterous; and he who has not the moral honesty to say so is little better than a charlatan.

Hæmorrhagic Hemiplegia results, we have already seen, from rupture, decay, or lesion of the brain, as a sequelæ of *Apoplexy*. The part of the brain more generally affected is the tract lying between the *medulla oblongata* (upper portion of the spinal cord) and the right *corpus striatum* (two streak-like eminences in the lateral ventricle), and although death does not always follow immediately, the patient is, nevertheless, beyond the reach of perfect cure; and whatever treatment may be afterwards pursued, if prudent, can only be such as applies to the particular condition of the system from which the attack arose. Where the patient survives, it is through the assistance which can be given to the natural powers of the body, and that 'assistance' is best secured by a gentle process of medication, assisted by every hygienic means that nature and art can give.

Cerebral Hemiplegia may be either *sanguinous* or *serous*; in either case, however, some portion of the brain is separated from its continuity. When the affection is incomplete it is because the injury is seated below the decussation of the antero-lateral columns.

In treating *Paralysis*, therefore, whether it be *Hemiplegic* (from the brain) or *Paraplegic* (from the spinal cord), if we bear in mind that, independently of other complications, either of these may be connected with or pass into each other, we can at once account for whatever irregularities present.

In proportion to the kind and extent of injury, therefore, the chances of recovery can only be determined. And in so far as *emetics*, *vapour baths*, *friction*, *galvanism*, *tonics*, *stimulants*, and all other means are concerned, there is not one but may be used with advantage and disadvantage, the same as in every other good thing. We have two

cases at the present time under treatment. One *Hysterical Hemiplegia*, from cerebral lesion; and the other imperfect *Paraplegia*, complicated with *Chronic Spinal Meningitis*. The former, the wife of a tradesman, aged forty-five; the other a man, apparently robust and well built, about the same age or rather older. The woman, who had been more or less afflicted for several years, and under treatment the whole time, for the last two years has improved so very considerably that life is now tolerable. We told her husband when we first saw her that there were not physicians enough in the world, nor medicine enough, to cure her. "Keep her alive," he said, "and I shall be satisfied." This has been done, but nothing more. The man has been in the condition stated for seven years; and to look at him any one unacquainted with the true character of the disease might pronounce it curable at once, and yet it is not so. He can eat, drink, sleep, and has full control over the internal viscera. The disease can never be permanently cured however.

We must bear in mind that the brain and spinal cord (spinal axis) is no exception to the general rule, and that functional and organic disease are two distinct affairs. The stomach may be functionally disturbed but not *scirrhus* or *ulcerated*. The same may be said of every other organ. To restore the former may not be difficult, but the latter can never be done. The restoration of the brain and spinal cord are governed, it will be thus seen, by the same law, and only in proportion to the extent of the injury, or the condition of the system generally, is it possible to determine the chances of recovery.

Presuming that we were to conclude our remarks upon *Paralysis* without prescribing anything positive by way of treatment, the student might consider that something had been left undone, and yet nothing more can be beneficially said except to remind him that whatever form the disease may set up, it is nothing more than symptomatic, and that the causes will be found in the impaired nutrition of the system generally.

Any cause, however remote, or form of disease that may at any time arise in the system may become the precursor of *Paralysis*, and it is these that we are called upon to treat.

Is the patient *Dyspeptic?* See "Indigestion," pages 404 to 409, and treat it. Is the Liver diseased? See "Disease of the Liver," pages 332 to 335, and treat it. Are the Bowels constipated, or in

what way is the patient affected? These considerations must not be overlooked if we are to hope for a successful result.

If the disease is peripheral, that is to say, confined to the terminal branches of the nerves, fingers, toes, or other part, it may be known by the partial loss of sensibility, numbness, coldness, &c. Apply in such cases the "Stimulating Liniment," with friction, daily, and raise up the system by hygiene and medication. The same means may be used in every case when the brain and mind are unimpaired, to which we may add galvanism and the "Cold Towel Baths." The latter, however, must not be used with the aged, nor in any case complicated with softening of the brain.

Good wholesome food, plenty of pure air, and friction upon the skin, galvanism, time, patience, proper attention to diet, strengthening medicine, with "Medicated Baths" occasionally, are all useful, and may be applied, partially or wholly, throughout with every advantage. Let no one assume, however, that because milder attacks recover from time and medication that the more severe will do the same. Experience has long convinced us of the impossibility of ever restoring to full and perfect health any patient who has suffered from an attack of *Hœmorrhagic* or *Serous Apoplexy*.

Marshall Hall, who is held to be a very high authority in the profession, speaking of *Paralysis*, says,—"It is not plethora alone which predisposes to the Apoplectic and Hemiplegic attack; the very opposite condition of the system, Anæmia (bloodlessness), whether it arise from loss of blood by blood-letting or hæmorrhage, or from defective sanguification, is not free from this danger. Dyspepsia and Cachexia (morbid or bad habit of body), as they induce external disease, as seen in Furunculus (boils), Paronychia (whitlow or felon), &c., may also induce a paralytic affection; a morbid condition of the blood taking the place of plethora or anæmia. *Such are* [may become—*Ed.*] *the predisposing causes of an attack* of Apoplexy or Paralysis; the PREVENTION *must consist in removing them;* and, according to circumstances, DEPLETION, IRON, SARSAPARILLA, COLCHICUM, and ANTACIDS, with the appropriate system of diet, EXERCISE, &c., must be steadily administered."*

* In *Palsy* or *Paralysis*, as in *Diabetes*, *Consumption*, *Apoplexy*, *Bright's Disease*, and nearly all others, everything almost that the animal, vegetable, and mineral kingdoms could supply, possessing real or supposed medicinal properties, have been employed, but it never seemed to occur to a single writer that the body possessed reparative qualities of its own; hence, whenever a favourable result has followed their continuous meddling, it has been ascribed to unnatural rather than natural causes.

CHOREA (*St. Vitus's Dance*).

Description.—A very little study of the functions of the brain and spinal chord is sufficient to enable us to detect the true character of this disease. We have seen that there is a form of *Hemiplegia* called *Choreic*, and that one of its principal causes is lesion, pressure from tumefaction, or other cause, as the case may be, in some part of the cerebral-spinal axis. It has been defined as "Functional disarrangement of the motor nerves," which it doubtless is, but why the nerves lose the power of controlling and regulating the muscular movements, is a very necessary consideration. What in fact is the cause of the *Choreic* condition, and in what way is it connected with the general disarrangement?

Causes.—That *Chorea* arises from irritation of the spinal cord there cannot be two opinions, and if so, it is easy to account for the general disarrangement of the motor nerves, which is simply irregular action set up or excited from the seat of the disease. It is most common with the young from about nine to fifteen or sixteen years of age. Now and then it attacks the aged, but when it does, it is generally in some particular part only, hence in this form it is incomplete or partial *Chorea*.

It is more or less associated with weakness, but not always so, particularly in patients more advanced in years; hence anything that gives rise to excitement in systems predisposed to hysteria or weakness may become the proximate cause. Ascarides, or seat-worms, fright, falls, blows, rheumatism, or even a common catarrh or cold; so true is it that the most trifling disturbance may set up, at any time, a most distressing disease, the character of which will vary according to the peculiar idiosyncrasy of the mind or body.

Diagnosis.—In "complete" *Chorea*, the whole body is more or less convulsed. In "partial," any part may be affected from the simple twitching of the eye-lid to the whole face, part of the face, head, single limb, or all the limbs. We distinguish *Hemiplegic Chorea* by the dragging of the leg; but in cases where the head alone is affected it is distinguished by the sudden jerking of the neck; and where the muscles of the face are implicated, by the irregular and convulsive movements which agitate

the mouth, and so on throughout the body, any or every part may be thus agitated, even to the fingers and toes, which are twitched and twisted outward or inward alternately. Deglutition is more or less affected, and any attempt to convey food or drink to the mouth is accomplished with difficulty. In all cases the general health and mind are impaired, but not seriously; the bowels are constipated, the breath often offensive, and the appetite variable. During sleep the body is at rest. It is to this cause that the life is sustained more than to any other, for were the violent agitation continued without cessation, it would be impossible for the system to endure the loss of nerve-force to which it is subjected for half or even quarter the time in severe cases.

TREATMENT.—*Hygiene.*—See "Index."

TREATMENT.—*Medicine.*—There cannot be two opinions regarding the immediate cause of the disease: the indications of treatment are to remove the spinal irritation through which the agitation and condition of the system which has given rise to the primary disturbance arises. Prescribe—

℞ Scutellarin ..... Fifteen grains.
Leptandrin ..... Ten grains.
Podophyllin ..... Five grains.
Zingiber (Ginger, in powder) ..... Thirty grains.

Divide into twenty parts, and give one part three times a day. Prescribe a "Medicated Foot Bath of Artemesia Vulgaris" (mugwort) for about ten or fifteen minutes, and at the same time bathe or foment the whole of the back, after which rub dry, put to bed, and prescribe—

℞ Verbena Officinalis (Vervain herb, dry) ..... Half ounce.
Sanguinaria Canadensis (Blood Root, in powder) .. Ten grains.
Lobelia herb ..... Fifteen grains.
Capsicum (Cayenne, in powder)..... Ten grains.

Infuse in a pint of boiling water, in a covered vessel, let it stand until sufficiently cool, sweeten with treacle, and give in wineglassful doses every fifteen minutes, until the stomach is vomited freely. Neither the "foot bath" nor "emetic" are to be prescribed, however, until the bowels have been freely moved by the former medicine.

Wherever the stomach, liver, and system are disordered (and more or less they always are) this treatment is the most efficient. As a daily medicine prescribe—

℞ Tincture of Gentian... ..... Two drachms.
Antispasmodic Tincture ..... Two drachms.

From eight to ten drops in a teaspoonful of cold water three times a day.

It will be rarely necessary to give more than one "emetic,' and, as an auxiliary, the "Compound Nervine Embrocation" should be well rubbed into the spine, from the cervical or upper portion downwards over the sacrum, with the warm hand, at night.

The cold "Towel Bath" may be also applied mornings, after the removal of the inflammatory condition of the spinal cord, from whence the choreic symptoms arise.

In this, as in all disarrangements connected with the spine, the end to be obtained is the general improvement of the system. The primary cause of the disease must be removed, however, before the latter can be accomplished.*

For "Compound Nervine Embrocation," "Convalescent Drinks," &c., see "Index" and "Appendix."

MYELITIS AND SPINAL MENINGITIS *(Disease of the Spinal Cord and its Membranes).*

Description.—If the student will turn to *Phrenitis*, page 345, he will see that we have carefully pointed out the different affections which distinguish the diseases of the brain and its membranes. "When the substance of the brain is attacked," we have said, "it is called *Encephalitis* or *Phrenitis;* if it is confined to the membranes (*Dura Mater*, *Pia Mater*, and *Arachnoid)* it is called "Meningitis" or "Arachnitis," &c., &c., and the same may be said of the spine. Like the brain, it is subject to similar diseases, which may either affect the substance of the cord, which is simply a prolongation of the

* Upon a careful review of all pathological processes, it will be found that there are very few of them which cannot be referred to a decrease, increase, or perversion of the function of nutrition.

Brown Sequard has shown that all forms of *Paraplegia* are either due to an increased or to a decreased quantity of blood in the spinal cord. Our knowledge of the pathology of enervation (functions of the nervous system) is not at all commensurate with that of the function of nutrition, but recent advances in physiology of this department are certain to be followed by corresponding additions to our information upon its morbid changes."†

† E. D. Mapother, M.D. London: Longman and Co.

brain, as its membranes are prolongations of the *Dura Mater*, *Pia Mater* and *Arachnoid*. What the general results of diseases of the brain and spinal cord may be, we have seen in the different forms of *Apoplexy*, *Paralysis*, *Chorea*, &c., already described (pages 462 to 482), and but for the fact that the causes which give rise to these are so varied in character, often terminating or passing in some cases into a chronic state, that is to say *Caries* of one or more of the vertebra, *Atrophy*, *Hypertrophy*, *Tumours*, *Hydatids*, or *Induration*, it might be a question whether it is really necessary to treat *Spinal Meningitis* and *Myelitis* as distinct diseases. It is perhaps needless to say that *Myelitis* is an inflammatory affection of the substance of the cord, and that *Meningitis*, when confined to the spine, is an inflammatory affection of some one or more of the membranes.

Causes.—Like the generality of diseases it may be due to hereditary causes, that is to say, to some original weakness of one or both the parents. Its proximate and exciting causes are exceedingly various and uncertain,—accidents, blows, straining, jumping, exposure to wet and cold, rheumatic or scrofulous diathesis, venereal excitement, syphilis, mercury, &c.: or it may arise from the abnormal action of the vertebra set up as a result of continuous jolting during long railway journeys. Those causes, however, are most common to males. In females the causes may be similar, where the habits or circumstances are of the same character, but in the generality of cases they may be traced to weakness, curvitude of the spine, sedentary pursuits, want of exercise, or any of the numerous disarrangements to which females are more especially liable, particularly at certain periods of life. It will be readily understood, from the relative position of the spinal cord to the brain, and its influence over the whole nervous force by which LIFE and HEALTH are maintained, that anything which interferes with its healthy action, if not removed, must set up one or other of the numerous disturbances to which, like every other organ, it is more or less liable.

Diagnosis.—Pain either in part or whole of the spine immediately affected, extending more or less to the limbs, chest, and abdomen, accompanied at times with spasms, contractions, choreic convulsions, &c.

These symptoms often vary, that is to say they may be accompanied

more or less, particularly in females, with *hysteria*, difficult respiration, menstruation, constipation, *flatulency*, palpitation, retention or incontinence of urine, involuntary passing of fæces, complete or partial paralysis, &c.

Severe cases of *Spinal Meningitis*, *Myelitis*, or indeed any other affection of the spinal cord, may be followed with coma, delirium, or typhus, and terminate in death from the tenth to the fourteenth day.

TREATMENT.—*Hygiene.*—See "Index."

TREATMENT.—*Medicine.*—The "description," "causes," and "diagnosis" of the spinal cord and its membranes, if considered in relation to APOPLEXY, PARALYSIS, and the BRAIN, cannot fail to give the student a clear conception of the indications of treatment necessary to be carried through.

He will see that the terminations and sequelæ grow out in very many cases from gradual weakness, which may have their "predisposing causes" in the system, or exciting causes in accident, disease, exposure, or something more obscure, which the most skilful may find it unwise to even speculate upon. To subdue excitement under every circumstance is the primary consideration, and to accomplish this, the condition of the patient must be understood, and the complications carefully attended to. Prescribe—

℞ Artemesia vulgaris (Mugwort herb, dry) ..... Four ounces.

Infuse in a gallon of boiling water, let it stand until sufficiently cool, and apply as a foot bath for about ten or fifteen minutes, and at the same time well foment the whole of the spine, after which prescribe as an enema—

℞ Ulmus Fulva (Slippery Elm, in powder) ..... Half drachm.
Sugar (fine white) ..... One ounce.

Mix the two until they are well incorporated, pour on twelve ounces of warm water, inject, and when the bowels are relieved, the patient should be placed in a warm comfortable bed, rest should be strictly enforced, and the following medicine prescribed:—

℞ Mellisa Officinalis (Balm herb, dry)..... Half ounce.
Archangelica (Angelica root, in powder)..... One drachm.

Infuse in a full pint of boiling water, in a covered vessel, let it stand half an hour, strain, sweeten with treacle, and give in wineglassful doses, hot, every ten or fifteen minutes, until the whole is taken.

The purpose of this treatment is to relieve the spinal cord, by removing the pressure, through gentle diaphoresis.

All cases accompanied with acute pain throughout the back are strongly presumptive of inflammation, and the treatment prescribed is perfectly safe, even though the diagnosis may be doubtful.

An ordinary white pitch plaster may be applied over the seat of pain or, if necessary, over the whole length of the spine, in severe attacks, with advantage. We are to bear in mind the terminations which follow, where the irritation (whatever its cause) is not removed, and spare no effort to accomplish the result at which we aim. Drastic purgatives should be avoided, and everything that may have a tendency to reduce the strength.

It must be borne in mind that we are treating "Disease of the Spinal Cord and its Membranes," and not the diseases that grow out of them. These we have considered under the heads "Chorea," "Paralysis," &c.

We must also remember that every organ of the body may be more or less implicated; that in fact the *Stomach*, *Liver*, *Kidneys*, *Bladder*, *Heart*, *Intestinal Canal*, *Uterus*, and even the *Lungs*, may be partially impaired, and one or all require especial attention,* for which see "Index." See also "Index" for "Domestic Medicated Wines," "Diet Drinks," "Convalescent Drinks," &c.

HYSTERIA *(Hysterics).*

Description.—This is a disease of the nerves originating in debility from unpaired nutrition, arising from confinement, excitement, disappointment, or other causes. It is most common to unmarried females of delicate constitutions, between the age of fifteen and forty, forty-five, or fifty, and is characterised by fits of convulsion, from impeded respiration, and involuntary efforts to repress alternate attacks of grief, spasms, &c.

Causes.—Like almost all other forms of chronic disease, its remote or predisposing causes may originate in hereditary transmission. That delicate mothers, or delicate fathers, begotten of mothers disposed to nervous disease should become the progenitors of hysterical

* The regular treatment is similar to that recommended in inflammation generally, viz.:—Leeches, cupping, counter irritation, blisters, tartar emetic ointment, opium, purgatives, &c.

daughters or delicate sons, is just that which experience has long since taught us. Apart from this cause, however, there are very many others; such as excessive mental application, close confinement to any kind of sedentary employment, impure air, constipation of the bowels, anxiety of mind, dyspepsia, spinal irritation, diseases of the uterus and liver; suppressed, excessive, or irregular menstruation; or anything that reduces the strength or interferes with the normal action of any of the organs upon which the general health depends, but more particularly with the healthy action of the nervous system.

Diagnosis.—Physical and mental weariness, fretfulness, low state of vitality, flatulency, constipation, difficulty of breathing, palpitation of the heart; choking sensation, as if a ball or some solid substance had lodged in the trachea (globus hystericus); feeling of suffocation, convulsions of the limbs, partial loss of sensibility, hysterical screaming, crying, violent spasm, and expulsion of wind from the stomach. The attacks are generally preceded by pain in the head and extreme lassitude, which leave the patient weak and sore in almost every part of the body.

Treatment.—*Hygiene.*—This is one of the numerous forms of disease which change of scene and proper attention to the laws of health can do as much by way of prevention and cure as medicine. It unfortunately happens, however, that the majority of patients are not in a position to command the necessary means, and under such circumstances are compelled to seek relief as they best can. More or less, however, *Hysteria* is connected with causes which come immediately within the domain of rational medication, although it is rare that the hygienic branch of medicine can be primarily applied.

Treatment.—*Medicine.*—If called during the fit or hysterical attack, the first consideration is, how to bring your patient out of it; and the next how to raise the system up, so as to prevent a return. Remove the impediment to respiration at once, that is to say unlace the stays, open the window and door, and in the absence of other means prescribe cold water freely, internally and externally. Put both hands into it, give it freely to drink, and dash a small wineglassful suddenly into the face. A few minutes is generally sufficient to restore the patient. The following, if at hand, however, is a much better remedy:—

℞ Antispasmodic Tincture.
From ten to fifteen drops break up the spasm at once.

Hysteria is not a special or idiopathic disease, but the result of organic decline, or general debility, arising out of some chronic disarrangement, which must be removed before the cure can be accomplished. Attend to the general condition of the system; raise up the strength in fact, for there is no other way of successfully meeting its indications. Whatever the causes are it will be absolutely necessary to remove them before any great good may be expected. Throughout the whole of our experience (and it has been pretty extensive) we have never met with a case but was due more or less to impaired nutrition, arising out of one or other of the causes named, but generally associated with *Dyspepsia* or *Indigestion*. Prescribe—

℞ Compound Lobelia Pills.
From two and a half to five grains,—one after meals daily; and

℞ Antispasmodic Tincture	Half ounce.
Fluid Extract of Leonurus Cardiaca (Motherwort)	One drachm.
Water	Three drachms.

Well triturate the whole in a mortar, and give from fifteen to twenty drops three times a day.

Prohibit the use of tea and coffee, and in their stead prescribe the "Convalescent Powder," see "Index."

Should the liver require attention, as it generally does, prescribe—

℞ Podophyllin	Five grains.
Hydrastin	Ten grains.
Leptandrin	Ten grains.
Zingiber (Ginger, powdered)	Thirty-five grains.

Mix, divide into twenty parts, and give one part daily, or more, if necessary.

It is imperative, as a means of cure, to raise the system above the level of the disease; and, as soon as it is prudent, enforce the "Cold Towel Bath" every morning, with free exercise in the open air daily.

As a means of alleviating the "Hysterical" attacks, which, during the treatment often occur again and again, but generally in a milder form, prescribe—

℞ Tincture of Scutellaria (Scullcap) ..... Half ounce.
From fifteen to twenty drops, three or four times daily; laying aside the "Antispasmodic Tincture, &c.," for the time.

We are to remember that medicine, like food, requires change, and

that however proper a remedy may be it loses its power by long-continuous use.

Should the disease be complicated with irritation of the uterus or vagina, cold water injections, three or four times daily, in connection with the general treatment, will be proper; or should it be complicated with ulceration of the uterus, or any of the more serious maladies to which the body is liable, each particular disease will require special attention.*

EPILEPSIA *(Epilepsy).*

Description.—This is one of the most perplexing and unsatisfactory diseases which it is possible for a medical man to deal with. 'Perplexing,' because of its general obscurity; and unsatisfactory, because in the majority of cases it bids defiance to every exertion and the very best possible skill. It has been known in every age, attributed to every natural and supernatural cause, and treated according to the fancies, superstitions, or fashions of each particular country. It has been defined as *a sudden deprivation of sensation and consciousness, with spasmodic contraction of the voluntary muscles, quickly passing into violent convulsive distortions, attended and followed with torpor (profound sleep), recurring in paroxysms often more or less regular.* It assumes a variety of forms, from simple unconsciousness to that of the most violent and exhaustive convulsions, nor have we succeeded up to the present time in acquiring any therapeutic advantages over the past, hence our treatment remains uncertain.

Dr. Copeland says, "There are certain circumstances connected with the pathology of *Epilepsy* fully ascertained, and which should be kept in recollection *in our speculations* as to its nature and treatment: 1*st*, That it may remotely depend upon inanition, losses of blood, or a deficient quantity or quality of this fluid; 2*nd*, That it may be owing to totally opposite states as respects either the system generally or the brain especially; 3*rd*, That it seldom occurs in persons whose digestive, assimilating, and circulating organs perform their functions regularly; 4*th*, That in the simple and early disease it is not dependent upon any lesion cognizable by our unassisted senses,

* For "Formula of Medicine," "Medicated Wines," "Nervines," "Dietetics" &c., see "Index" and "Appendix."

unless such 'lesion' be seated in the *medulla oblongata* or *pituitary* and *pineal glands*,—parts not yet sufficiently examined in this malady,—and which may be dangerously affected without manifesting any material change, &c., &c.

"The ancients supposed that the disorder was caused by a pituitous humour (viscera or tough mucous) in the ventricles of the brain, the symptoms arising from an effort of nature to relieve herself from it.

"Boerhaave and Van Swieten imputed it to a morbid action of the brain exciting the nerves of motion and obscuring those of sensation.

"Dr. Cullen considered that it may proceed in some measure from too great excitement of the brain, and in others from collapse. Numerous modern writers have referred it to a change in the structure of the parts within the cranium. *But opposed to this opinion are the facts that in the simple disease lesions are seldom observed;* and that when observed in either the simple or complicated states, they are not uniform or even of the same kind, *and are as frequently seen in other diseases of the brain attended by convulsions as in Epilepsy.*"

It will be unnecessary to quote any further the conflicting testimony of ancient or modern authors, seeing that there is nothing satisfactory regarding its pathology to be found in any of them, and consequently nothing 'satisfactory' in their treatment,—not that we should be surprised at this, for where a disease is so obscure that it cannot be accounted for by the exercise of our senses, the treatment cannot be otherwise than uncertain.

Neither medicine nor the physician are at fault in such cases, nor will he that is well up in practice ever venture beyond probability where all is doubt, nor he that is wise be led away by specious promises, for nothing destroys the reputation so readily as falsehood or error in diagnosis. The latter may be excused, the former cannot. Just a case in point. The late Dr. Epps edited and reprinted the work of Dr. H. Pulte, an American Professor of Homœopathy, and without a single word of comment or excuse for such a statement, he quotes the following:—

"Most of the epileptic patients can be cured, but it requires the attendance of a skilful homœopathic practitioner."

What the cure or treatment is, he has not condescended to tell us, except that part of it which relates to the immediate attack.

"Give him," he then says, "one dose (one globule) of *Belladonna;* or if his face is dark and congested, and his breathing very hard and snoring, a dose of opium (one globule)."

We can only feel pity for the man who knows so little of what he professes, or who from cowardice, vanity, or greed, deceives himself and wrongs his patients,—nor do we know of any greater 'wrong' than that of deceiving either the sick or their friends.

Causes.—That the disease may be transmitted there is scarcely a doubt; and that it is generally connected with the brain is very well known. Any kind of mental idiosyncrasy or consanguinity on the part of the parents may therefore become predisposing causes. Apart, however, from cerebral or spinal disarrangement, many proximate or exciting causes are set up, such as intemperance, excessive venereal indulgence, nervous debility, passion, fright, mental excitement, anxiety, loss of position from failure in business, losses by speculation, injuries to the brain, *dyspepsia*, disease of the liver, worms, pressure from tumours, osseous spiculæ, indurations, syphilitic and scrofulous disease, or anything that interferes with the healthy and regular action of the cerebral circulation or nervous system generally.

Diagnosis.—Loss of consciousness accompanied with convulsions. Sometimes the attack comes on suddenly, at other times gradually, so that the patient is forewarned of its approach. In the generality of cases, however, no warning whatever is given, and he falls suddenly, as if struck with some heavy weapon, foams at the mouth, and struggles violently,—at times for a few minutes only, but more generally for half an hour, an hour, or two or three, with occasional slight intermissions of the convulsions. The attacks occur at certain periods, weekly, monthly, or longer or shorter, as the case may be. Sometimes they come on daily, or nightly, for two, three, or four days in succession, and then pass off for a month, two, three, four, five, six months, or even a year. Every paroxysm has two stages, the *convulsive* and the *soporous*. The latter follows as a result of cerebral and muscular exhaustion.

In some cases the attack is preceded by headache, nausea, and what has been designated *Aura Epileptica*, that is, a feeling similar to a breath of cold air passing from a given point of the body, such

as the finger or toe, upwards, until it reaches the brain. In other cases the *Aura* proceeds from one or other of the organs of sense, and gives warning of the approaching attack through the taste, smell, colour, or sight.

The duration of the disease is as indefinite as it is uncertain, and though difficult of cure is rarely fatal.

Hufeland says it is curable only in the proportion of one to twenty cases.

Treatment.—*Hygiene.*—See "Index."

Treatment.—*Medicine.*—Before entering upon the consideration of treatment, it will be proper to ask ourselves what cases are favourable and what unfavourable?

Where the mind is greatly impaired, we may conclude there is little or no chance of recovery, and all that can be done is to alleviate the symptoms. It will be readily understood that anything which seriously affects the brain, whether through pressure, injuries of the skull, tumefaction, induration, malformation, *nodes*, *tænia*, lesion, softening, or other cause, must equally affect the mind, and that the latter may be fairly accepted as a correct indication of the former. Curable cases are such as arise from gastric or intestinal causes; plethora, exhaustion, tape worm, seat worms, close confinement, cerebral and nervous irritation, mental excitement, abuse of the passions, or other causes, which, although affecting the cerebral functions, leave the brain organically uninjured.

This knowledge is advantageous in *diagnosis*, but much more so in *prognosis*, inasmuch as it prevents the disappointment that arises from undue expectations created by promises that can never be realized.

What is the cause—what the condition of the patient—and what the proper treatment? are questions to be first settled. Is the disease hereditary? That is to say, can it be traced to insanity on the side of one or other of the parents—to marriage of blood relations—pressure upon the brain from accident—softening of the brain, &c. If we are satisfied that it does not originate in any of these causes, and find, after careful examination, the mind unimpaired, we may reasonably conclude that it is amenable to medicine, and proceed to treat it agreeably with the requirements of the case.

Should the *stomach* or *liver* be at fault, treat for these diseases, and enforce abstinence from the causes, whatever these may happen to be. Should it arise from *Tape Worm* or *Seat Worms*, see "Index," and treat for them: remove the causes and the effects will cease. Prescribe—

℞ Ruta Graveolens (Rue, herb, dry) ..... One ounce.
Podophyllum Peltatum (powdered American Mandrake) ..... Half drachm.
Lobelia (seed and herb, in powder) ..... Half drachm.
Capsicum (Cayenne, in powder) ..... Ten grains.

Infuse in a pint of boiling water, in a covered vessel, let it stand half an hour, take one half at night and the other half in three doses the following day.

This should be prepared and taken once during the week. The patient should eat nothing two hours before taking the medicine at night, nor for two hours after taking the first dose in the morning. For delicate females one half of the above will be sufficient; and for children in proportion to age.

As a medicine to be taken during the six days, prescribe—

℞ Scutellarin ..... Thirty grains.
Capsicum (Cayenne, in powder) ..... Twenty grains.
Hydrastin ..... Twenty-two grains.

Mix, divide into eighteen parts, and take one part three times a day.

It will also be proper, whenever the patient's strength will admit, to prescribe an emetic, as follows, in wineglassful doses, every ten minutes, just before the periodical return of the fit:—

℞ Anthemis Nobilis (Common Chamomile herb, dry) Half ounce.
Lobelia (herb and seed) ..... One drachm.
Capsicum (Cayenne, in powder) ..... Ten grains.

Infuse in a pint of boiling water (in a covered vessel), let it stand until sufficiently cold to drink, sweeten with treacle, and while it is being prepared,

Prescribe—

℞ Artemesia Vulgaris (Mugwort herb, dry)..... Four ounces.

Infuse in two gallons of boiling water, and when sufficiently cool use as a foot bath for about ten or fifteen minutes. In severe cases, where there is sufficient stamina, the "Emetic" and "Foot Bath" may be given once a week with advantage.

There is no condition of the system where emetics are inadmissible except where the heart is seriously disarranged or the system greatly debilitated.

In addition to the medicines already prescribed, the "Convalescent Powder" should be used instead of tea or coffee with the meals. The complications also, whatever they may be, will require attention. Above all other considerations, pay strict attention to the stomach, liver, and internal viscera.

Should enemata be necessary, see "Index," "Enema," "Ulmus," or "Digestive Food," and prescribe when necessary. Exercise, change of scene, and relaxation from study, should be strictly enforced.

By paying attention to the time when the attacks generally return, whether at the end of a week, month, or year, and prescribing the medicine regularly, with the "Emetic," just before the fit might be again expected, it will either be cut off completely or greatly modified, and by persevering in the same course, the condition or habit of body may be removed altogether.

It is almost needless to remind the student that the patient, when the fit is on, requires especial attention. A thick piece of gutta-percha or india-rubber placed between the teeth will prevent the tongue from being bit, or in its absence a piece of round soft deal stick. No more restraint should be used than is just necessary to prevent injury; whilst pulling open the contracted thumbs or fingers and smacking the hands should be carefully avoided.

Place the patient in a position where no injury can arise from struggling, and if the remedy is at hand, prescribe—

℞ Antispasmodic Tincture ..... One drachm.

Or in its absence—

℞ Tincture Capsici (Cayenne Tincture)..... One drachm.

Either of these poured into the mouth will arrest the attack at once; the former is the most certain, however.

For Epileptic Formulas, Nervines, Dietetics, &c., see "Index" and "Appendix."

NEURALGIA *(Tic Douloreux)*.

Description.—There are few diseases better known than this, and although not necessarily dangerous, it is, nevertheless, very distressing, tedious, and, under ordinary practice, most intractable.

There can be no difficulty in understanding it, seeing that it is peculiarly a disease of the tri-facial nerve, that is to say, the fifth pair, or great sensitive nerve of the head and face. Pain of any and every kind and degree is a symptom of disease, which may be either acute or chronic, extending to any particular part, or confined distinctly to a nerve, as in the present case.

Causes.—Like all other disarrangements, it has its predisposing as well as its exciting causes, which it is necessary to understand and distinguish. It is most common to females, particularly during pregnancy, and more especially to the delicate and anæmic, who, from a low state of vitality, are peculiarly liable to it upon all occasions where disturbance of any kind is set up, whether from physical or mental causes. The nerves of the face give off branches to the teeth, which from their liability to decay, dispose the face to inflammation, hence it is often connected with caries of the teeth, cold, *dyspepsia*, sympathy from gestation or pregnancy, nervous irritability, *hysteria*, or anything that disturbs the mind or disarranges the system in any way.

Diagnosis.—Extreme pain in the face, extending at times to the head and teeth, and at other times to the eyes. It may be transient or enduring, according to circumstances; in some cases lasting only for a few minutes, and as suddenly departing; in others alternating, or coming and going at intervals of days or weeks: and in extreme cases, where improper means have been employed, or where it has been neglected, continuing for months, or more or less for years.

Treatment.—*Hygiene.*—Avoid excitement and extremes of cold or heat, and be careful not to disarrange the stomach by taking anything heavy or indigestible.

Treatment.—*Medicine.*—The first consideration is the removal of pain, and next the general condition of the system. It is seldom, however, that your patients will trouble you about the latter if you relieve the former, and yet this is the cause from which all their difficulty arises, for in nineteen cases out of every twenty the pain is due to some deeply-seated disarrangement which requires proper medical treatment. But we are dealing with an

attack of *Neuralgia*, and the patient requires immediate relief. Prescribe—

℞ Tanacetum Vulgare (Tansy, herb, dry)..... Two ounces.

Infuse in a gallon of boiling water, and when sufficiently cool use as a "Foot Bath" for from five to ten minutes, after which rub dry, put to bed, and

Prescribe—

℞ Mellisa Officinalis (Balm, herb, dry) ..... One ounce.

Infuse in about three quarters of a pint of boiling water, in a covered vessel, let it stand until sufficiently cool, strain, sweeten with treacle, and add—

℞ Antispasmodic Tincture ..... One drachm.
Tincture of Mandrake ..... Half drachm.

Give a wineglassful every quarter of an hour until one half is taken.

The patient may now wrap up warm and go to sleep without the least dread of further pain. The remaining half of the medicine may be taken during the next three days in half wineglassful doses.

In long standing severe cases, it may be sometimes necessary to prescribe a "Local Medicated Bath" to the face as well as feet (see "Bronchitis," pages 291 and 292). In other cases, or those of a milder character, it will be sufficient to prescribe—

℞ Antispasmodic Tincture ..... Two drachms.
Tincture of Mandrake ..... One drachm.
Tincture of Feniculum Vulgare (Fennel seed, in powder) ..... One drachm.

From a half to a teaspoonful may be given two or three times daily. A single teaspoonful will, if taken at bed-time, remove it at once in the generality of cases.

We are to remember that the pain is symptomatic, and that whatever the general condition of the system may be, it will be necessary to remove it, if a relapse or return is to be prevented.

It will be also necessary to bear in mind that where the disease is occasioned by caries, or ulceration from decay of the teeth, it will be proper, whenever practicable, to have them extracted.

For Formulas of "Tinctures," &c., &c., see "Index" and "Appendix."*

* The common practice is to prescribe Iodide of Potassium, Carbonate and Peroxide of Iron, Calomel, Hydrochlorate of Ammonia, Quinine, Opium, blistering, leeching, &c.

Chapter XIV.

FEBRILE DISEASE (Fever).

REMARKS.

"NATURE KEEPS THE FREE AIR BLOWING TO AND FRO INCESSANTLY, IN ORDER THAT SLIGHT IMPURITIES MAY BE AT ONCE SPREAD THROUGH THE ENTIRE MASS AND WAFTED AWAY. WHEN CIVILIZED MEN BUILD THEMSELVES HOUSES, IN ORDER THAT THEY MAY PROTECT THEMSELVES FROM THE WINDS AND THE RAINS, IT IS ESSENTIAL THAT THEY SHOULD ALSO ADOPT CONTRIVANCES WHEREBY ARTIFICIAL WINDS MAY BE CAUSED INTO INTERIOR APARTMENTS TO A CERTAIN EXTENT. THE BLOWING OF FRESH AIR THROUGH THE INTERIOR OF ARTIFICIAL DWELLING-HOUSES IS TERMED 'VENTILATION,' THE WORD MEANS SIMPLY 'A BLOWING THROUGH.' A SUFFICIENT MEASURE OF 'VENTILATION' IS FAR BETTER THAN ANY MEASURE OF DEFINITE SPACE THAT CAN BE PROVIDED, HOWEVER LIBERAL THE ALLOWANCE MAY BE. WHEN FREE VENTILATION IS FURNISHED, THE SUFFOCATING CHOKE DAMP POURED OUT FROM BREATHING LUNGS IS SCATTERED THROUGH THE WIDE SPACES OF THE VAST ATMOSPHERE, WHERE THERE STANDS THE LARGE ARMY OF COMPENSATING PLANTS, WITH BROAD SPREAD AND THIRSTING FOLIAGE, READY TO SEIZE AND DESTROY THE NOXIOUS VAPOUR, AND WHERE PURIFYING OXYGEN IS KEPT ABUNDANTLY AT HAND."

There is no class of disease more intractable and uncertain than that of fever,—so little understood, and upon which so much has been written to so little purpose. "From a retrospective view of the past history of our science," says Dr. DONALDSON, "we are forced to acknowledge that there is perhaps no subject which is more eminently calculated to humble the pride of human reason than this one; for in relation to this subject especially, pathology has been in a continued state of revolution and instability. The human mind has been engaged with the subject for nearly three thousand years. Theories have risen and sunk again in a continued and rapid series of succession; each has had its hour 'to strut upon the stage,' and its votaries to yield its faith; but the stream of time has hitherto overturned all these unsubstantial, though highly-wrought fabrics."

In the acknowledgment of this great truth there is nothing to discourage; on the contrary, it should rather stimulate us to further action. Sir Gilbert Blane, speaking of infectious disease, says,— "Considered in its origin, its course, and its final purpose, no department of nature is so inscrutable, intricate, and obscure, forming a contrast with that constancy and simplicity observable in other branches of natural knowledge. How and why a secretion or exhalation, proceeding from the whole or part of a diseased body, should excite the like action in the whole or the corresponding parts of another living body, seem to be problems beyond the reach of the human mind to resolve." That there is scarcely a single form of fever which may not become contagious we know,—that it has been one of the great 'problems' of the past we also know,—and that it is equally the 'problem' of the present we are most reluctantly compelled to admit. But have no advantages to medical science grown out of our past efforts, and are we still in the same dark condition regarding its pathology and treatment? This question has been answered by Dr. Copeland in the affirmative, but not, we think, altogether satisfactory. That it is the nature of some particular poisons to destroy life immediately, and others by a slow lingering process, is very well known; whilst others, although they may not destroy suddenly, nevertheless often undermine the constitution, and leave it little better than a total wreck. To presume to be positive upon the phenomena of atmospheric or other poisoning would be little better than dogmatism; nevertheless, we do know that fevers and contagious diseases are ever most rife where poverty and ignorance rule. In all ages of the world this fact has been observed; we conclude, therefore, that in proportion as the laws of health obtain fever is modified, if not entirely prevented. Glancing, however, at the composition of atmospheric air and the action of animal and vegetable poisons, we may, from a parity of reasoning, arrive at something like a rational conclusion. That the blood is the immediate agent of life whatever other and more remote causes may operate in its production,—and that 'life' and health depend upon a proper supply of their conditions, uncontaminated and free from any admixture of the poisonous gases which emanate from vegetable and animal decay, &c., &c., none will venture to question. Presuming it possible, therefore, to sustain the balance, that is to say, accepting the estimate given of the composition of atmospheric air to be—

Oxygen	20·61
Nitrogen	77·95
Carbonic Acid	·04
Aqueous Vapour	1·40
Ozone, Ammonia, Nitric Acid, Carboretted Hydrogen, &c.	Traces.
	100·000

We might, if other conditions were equally favourable, sustain the balance of health also.

"Atmospheric air," it will be at once seen, is formed by a combination of gases, as above, and the quantity breathed is estimated to be between 14 and 20 cubic inches with each ordinary inspiration, which, flowing in and out of the chest, is termed "tidal" or "breathing air." Independently of this, there remains *reserved* or *residual* air, roughly estimated at about 40 cubic inches, which no effort can altogether expel. The amount of oxygen taken from the air has been calculated at about 4 per cent., and a corresponding amount of carbonic acid is given off in exchange. The oxygen enters into association with the red cells, which carry it all over the body, as there is no tissue which does not require it for the removal of effete or worn-out material.

The theory propounded by Liebig was, that venous blood contained carbonic acid as a carbonate of protoxide of iron, and gave it off in the lungs, where, taking more oxygen, the iron became a peroxide. The amount of carbonic acid evolved is influenced by certain circumstances, such as the capacity of the lungs, exercise, rest, temperature, disease, sleep, &c., &c. The amount of aqueous vapour evolved is estimated to be about 16 to 20 ounces in every twenty-four hours, determined, of course, by similar circumstances.

Nitrogen acts merely as a diluent, and is given off in expired air more freely than it is absorbed.

Of *Ozone*, *Ammonia*, *Nitric Acid*, *Carboretted Hydrogen*, *Sulphuretted Hydrogen*, and *Sulphurous Acid*, traces of which are found in more or less abundance (the two latter principally in cities and towns), little need be said beyond simply stating that they become injurious or destructive in proportion to their poisonous qualities, and the quantity combined with the four principal gases of which the atmosphere is composed.

The results that follow where the atmosphere is impregnated with

these poisons may be readily seen by reference to sudden explosions which take place in mines from the accumulation of Carbonic Acid, or from fevers suddenly or slowly engendered in emigrant vessels, camps, ill-ventilated houses, and badly-drained cities and towns.

"In a closed space, 8 feet high, 9 feet long, and 8 feet wide, a man could not breathe for twenty-four hours without uneasiness; at the end of that time the air would have the composition of EXPIRED AIR; AND IF THE PATIENT REMAINED LONGER IN THE SAME AIR, A MORBID STATE, AND FINALLY DEATH, WOULD ENSUE. LAVOISIER and SEQUIN found that the carbonic acid of expired air, when again inspired, may be raised to 10 per cent., but not beyond that quantity, even when respiration was continued, which it could only be for a short time. This proportion of carbonic acid may be regarded as the limit at which life is endangered in man."

There are few possibly but have read of the case which took place a very few years since, of an emigrant ship, in which, during a storm off the English coast, the emigrants were crowded into the cabin, and in less than six hours more than sixty persons perished. "The continuance of life and the preservation of health, and a due temperature of the body of man, stand in the closest relation to the respiratory process, the full efficiency of which depends on the constant composition of the atmospheric air; when this is altered by any cause, *temporarily* or *permanently*, the influence of the alteration shows itself in a transient or permanent disturbance of the vital functions."

The purposes which we know to be served by these several constituents of the atmosphere show that they are all essential to the composition of the air, and that in quantity as well as kind they have been beneficially adjusted to the wants and functions of animals and plants.

The oxygen of the atmosphere is essential to the very existence of life in the higher order of animals, it is a part of their natural food; and from every breath drawn into the lungs the vital air is extracted. Combustible bodies kindle and are consumed because of this gas; and presuming it was absent, neither *light* nor *heat* could be produced from *coal*, *wood*, or any other material. But the proportion, as we have already seen, is adapted to the existing condition of things. Did the atmosphere consist of oxygen only, the lives of animals would be of brief duration; and bodies once set on fire

would burn so fast as to be absolutely beyond control. It is therefore mixed with a large proportion of nitrogen, which harmlessly dilutes, weakens, and prolongs its action upon life, and more or less upon all matter.

As regards the purpose of carbon, every green leaf during the sunshine absorbs this gas. It is as indispensable to the life of the plant as oxygen is to the life of the animal. Remove carbonic acid and all vegetable growth would cease. It must, therefore, be a necessary constituent of the atmosphere of our earth.

But carbonic acid is poisonous to animals, which is doubtless the reason why the proportion is so small; were it much greater than it is, the atmosphere would be injurious to life, and, as we have already shown, would slowly or rapidly destroy it.* On the other hand, that

* The most remarkable natural example of an atmosphere overloaded with carbonic acid gas is the famous Poison Valley in the island of Java, which is thus described by an eye witness :—"We took with us two dogs and some fowls to try experiments in this poisonous hollow. On arriving at the foot of the mountain we dismounted, and scrambled up the side about a a quarter of a mile, holding on by the branches of trees. When within a few yards of the valley we experienced a strong nauseous suffocating smell, but on coming close to its edge this disagreeable odour left us. The valley appeared to be about half a mile in circumference, oval, and the depth from thirty to thirty-five feet; the bottom quite flat; no vegetation; strewed with some very large (apparently) river stones, and the whole covered with the skeletons of human beings, tigers, pigs, deer, peacocks, and all sorts of birds. We could not perceive any vapour or any openings in the ground, which last appeared to us to be of a hard sandy substance. It was now proposed by one of the party to enter the valley; but at the spot where we were this was difficult, at least for me, as one false step would have brought us to eternity, seeing no assistance could be given. We lighted our cigars, and with the assistance of a bamboo we went down within eighteen feet of the bottom. Here we did not experience any difficulty in breathing, but an offensive nauseous smell annoyed us. We now fastened a dog to the end of a bamboo eighteen feet long, and sent him in. We had our watches in our hands, and in fourteen seconds he fell on his back, did not move his limbs or look around, but continued to breathe for eighteen minutes. We then sent in another, or rather, he got loose and walked in to where the dog was lying. He then stood quite still, and in ten minutes fell on his face, and never afterwards moved his limbs. He continued to breathe seven minutes. We now tried a fowl, which died in a minute and a half. We threw in another, which died before touching the ground. During these experiments we experienced a heavy shower of rain, but were so interested with the awful sight before us that we did not care for getting wet. On the opposite side, near a large stone, was the skeleton of a human being, who must have perished on his back, with his right hand under his head. From being exposed to the weather, the bones were bleached as white as ivory. I was anxious to procure this skeleton, but any attempt to get it would have been madness."†

† London: "Johnston's Chemistry of Common Life."

growing plants may be able to obtain a sufficient, large, and constant supply of carbonic acid, they are made to hang out their many-waving leaves into the atmosphere. Over the surface of these leaves are sprinkled countless pores or mouths, which are continually employed in separating and drinking in carbonic acid gas. The millions of leaves which a single tree spreads out, and the constant renewal of the moving air in which they are suspended, enables the living plant to draw an abundant supply for all its wants.*

This constant action of the leaves of plants is one of the natural agencies by which the proportion of carbonic acid in the lower regions of the atmosphere is rendered less than it is in the higher.

The aqueous or watery vapour of the atmosphere is not less necessary to the maintenance of life. The living plant consists of water to the amount of nearly three-fourths of its whole weight, and from the surface of its leaves water is continually rising into the air in the form of invisible vapour.

Were the air absolutely dry, it would cause this water to evaporate from their leaves more rapidly than it could be supplied to them by the soil and roots. Thus they would speedily become flaccid, and the whole plant would droop, wither, and die.

The living animal, in like manner, is made up for the most part of water. A man of 154 lbs. weight contains 116 lbs. of water, and only 38 lbs. of dry matter. From his skin and from his lungs water is continually evaporating. Were the air around him perfectly dry, his skin would become parched and shrivelled, and thirst would oppress his feverish frame. The air which he breathes from his lungs is loaded with moisture, and if that which he draws in were entirely free from watery vapour, he would soon breathe out the fluids which fill up his tissues, and would dry up into a withered mummy. It is because the atmosphere contains this moisture that the maintenance of organic life continues; and only in proportion as the gaseous balance is sustained can the organic kingdoms fulfil the end for which they exist.

* A common lilac tree, with its million of leaves, has about four hundred thousand millions of pores or mouths at work sucking in carbonic acid; and on a single oak tree as many as seven millions of leaves have been counted.

FEVER *(Theory of)*.

The word "theory" produces in some readers a feeling of dissatisfaction. They dislike it, and turn aside as if it was a something undefinable, a kind of dream, satisfactory enough to mystics, but altogether objectionable to rational men. "We want facts," they say, "not theories." That the objection is admissible we readily grant where 'facts' are to be had; but where they are not, or in other words, where the mind has hitherto been incapable of working these out, 'theories' alone can supply their place. We distinguish "theory" from speculation by assuming that it is a conclusion arrived at from calculation and reflection, and where we have to deal with abstractions these are our only resources; for whilst we may be incapable of mathematically demonstrating an opinion, we should not rest contented with the difficulty, but by comparison, examination, and induction, endeavour to arrive at such conclusions as reason and experience fairly enable us to do.

What, then, we ask, is 'fever,' and what is its distinctive character? That it assumes a variety of forms we know, and is *benign* or *malignant*, *exanthematous*, *enteric*, *intermittent*, *remittent*, *relapsing*, *non-contagious*, or *contagious*, according to the peculiar atmospheric or other abnormal conditions that may obtain for the time being.

We have seen what the composition of 'atmospheric air' is, and how it may become the medium of *health* or *disease*, *life* or *death*, in proportion to its purity or impurity; and assume, from what we know of the action of certain positive poisons, the nature and effect of other 'poisons' equally active, although not so well understood. Arsenical poisoning, for instance, may be sudden or progressive, whether administered medically or for suicidal purposes. We know, from its tendency to accumulate in the system, that it may be all but inactive under certain morbid conditions, and that with the return of recuperative reaction, active poisoning may be set up which may terminate in death. That such cases have been we very well know; and this same tendency is found in other poisons, more particularly in digitalis; whilst the tendency of others is not only to accumulate, but to become active or inactive, according to their affinity for other substances. A patient may have undergone a course of mercurial salivation, remain comparatively free from any poisoning symptoms for

years, and yet after taking a few grains of *stillingin* for some slight cutaneous eruption, find himself in a complete state of *pytalism;* and similar effects, more or less, may follow the action of nearly all other poisons.

The poison from the bite of a rabid dog it is well known may remain latent or quiescent for months before *Hydrophobia* developes itself, whilst the poison of the cobra rapidly, and all but suddenly deprives the patient of life.

That disease in all its various forms results from a disturbed or morbid condition of the blood there can be nothing more certain, and that that condition arises from certain agents within the body, whether their action be slow or rapid, is without doubt equally correct, and more especially so in fever.

Arsenical poisoning, lead poisoning, and choleraic poisoning, resemble each other in many of their symptoms, and unless in connection with circumstances, might, and have been in some instances, confounded or taken for one another.

The same may be said of all other kinds of poisoning. At certain periods different morbid actions are set up, and disease varies in type according to age, temperament, or peculiar idiosyncrasy. Old people rarely or never suffer from measles, scarlatina, or small-pox; and whilst children are peculiarly liable to these, they escape typhus, intermittent, and other fevers. A pipe of tobacco, if smoked by a child, would destroy its life. A man or woman, when used to it, may smoke twenty without producing any visible effect. Measles, scarlatina, and small-pox, may sweep off half the children of a street or whole parish and leave the aged untouched.

These facts are patent to all medical men of experience, and yet such is the force of prejudice and interest, that when it becomes necessary to shut our eyes to facts we do so, priding each other upon our sagacity at the same time, and deceiving ourselves and others. This truth was never more manifest than in the nonsense talked and written by medical men regarding the contagious nature of small-pox, one of the very worst forms of exanthematous fever. "Are not the nurses in our small-pox hospitals," they ask triumphantly, "the best evidences that can be given in favour of vaccination? That they escape the contagion purely from this there can be no doubt whatever,—and what more can reasonable men and women require to convince them of its great utility?" This is one of the stock

arguments which folly uses to beguile and soothe credulous and unsuspecting parents who mentally suffer from an affliction over which they mourn but do not understand. The Editor of the *Lancet*, January 22nd, speaking upon the subject, says, "Dr. LANCASTER, in compliance with the request of the Vestry of St. James's, Westminster, has drawn up, in the form of a TRACT, a statement of *the facts* and reasons in favour of vaccination, for popular use and circulation. The Vestry has acted wisely in trying to oppose a little common sense to the *anti-vaccination nonsense which is talked so freely to the ignorant*. Dr. LANCASTER's Tract is very well done, but it might have been done better. THE AMAZING SECURITY OF THE NURSES AT THE SMALL-POX HOSPITAL IS NOT EFFECTIVELY PUT. Their security is due to RE-VACCINATION, not vaccination alone,—and for thirty years not one of them has had the small-pox. Every vestry and parish in the kingdom should follow the example of St. James's, and scatter such tracts broadcast over the country. The case in favour of vaccination is so obvious that it has only to be simply and properly stated to be received by the people." No argument can by any possibility be half so weak as this,—and speaking of the "ignorant," where, we ask, can we find such another sample? Dr. LANCASTER and the Editor of the *Lancet* must know that the poison of small-pox, like that of measles and scarlatina, has in the first place little or no affinity for adults; and in the second, that it loses its influence as age advances. "A pipe of tobacco smoked by a young child," we have said, "would destroy it," as a half grain, or even a quarter grain, of opium might; but when their systems have become inured to these poisons with advancing age, they can use them with impunity. A teaspoonful of pure alcohol may destroy the life of an infant; adults, however, are rarely seriously affected unless they use it extravagantly. We have seen measles, scarlatina, and small pox, alternately epidemic, sweep off thousands without in any way affecting parents, medical attendants, nurses, or adults of the neighbourhood, and yet no one appeared to think there was anything strange about it. It is accepted as a fact that the young only suffer and die from these diseases, although the same poisons set up other forms of disease in adults. Just a case in point. In the *Lancet* of the same date, speaking of the mortality from scarlet fever, the Editor says,—"In his last monthly report to the Vestry of Marylebone, Dr. WHITMORE refers to the prevalence of *Scarlet Fever* in the parish, more deaths being caused

by that malady during December than by any other form of disease, excepting *Phthisis* and *Bronchitis*. He attributes the extent of the epidemic in a great measure to the neglect and apathy of the poorer classes, as to whom he says, that had they generally carried out the very plain and simple instructions to prevent the spread of infection which he distributed among them, the mortality which has resulted would have been materially less."

It never appeared to strike this sagacious editor, that to sustain his arguments in favour of Vaccination, the parents and adults who escaped *Scarlet Fever* should have been inoculated, and re-inoculated with some kind of morbid virus, in order to become impervious to the action of this specific poison.

Is it anything to be surprised at, that medicine,—one of the grandest and most useful of all sciences,—should be in its present degraded condition where so much darkness obtains with its public teachers and leading minds?

Dr. Copeland, speaking of fever, says,—"The intimate connection existing between all diseases, which either at their *commencement* or in their *course* exhibit febrile symptoms, might have been less a source of error if the *phenomena characterising them had been traced more accurately to their origin*, and with a strict reference to their causes, than they generally have been; and if succeeding and consecutive alterations had been recognised chiefly as effects of the previous changes." To which he might have added,—Such knowledge would enable us to grapple with preventive measures through the medium of hygienic and sanitary appliances. At the present time, much as we pride ourselves upon progress, very little is known, and less cared for, regarding these great branches of medical science. At this very time, and within a radius of a single mile from where we reside in the town of Birmingham, the model it is presumed of middle and working-class intelligence, thousands of even the better class of workers stagnate in the midst of a continuous pestilence in small ill-contrived dwellings, many of them quite modern, without back-let or ventilation of any kind. Ventilation has not been even thought of, and the result is that disease and death are constantly with them. The more favoured class talk of the ignorance of the poor and their want of education, as if they themselves were in a state of the highest perfection, whilst at the same time displaying an amount of 'ignorance' regarding the practical duties of life far

below the class which, doubtless with the very best intentions, they endeavour to serve.

To whom upon this great subject of the "health-education of the people" shall we turn? Alas! we do but ask the question in vain, for the most humane and wisest appear content to remain in bondage rather than deal with a question of so much importance to mankind. Sir John Forbes, M.D., said,—"Of the potency of the medical art in its hygienic form to strike at the root of most of our *febrile* and many of our inflammatory diseases, and thereby to save life in the best manner, that is, without the penalty of suffering, there can be no doubt, and if the attention of society were but once fully given to the subject, and the exertions of the professors of the art (medical) thereby diverted from the many absurdities and impossibilities that now engage them, were fully turned into this rational and legitimate course, *the saving of life would not only modify our tables of mortality, but affect the fortunes of nations.*"

That such would be the great advantages of this there cannot possibly be a doubt; and although we may not see the way in which it is to come, nevertheless, the same excellent author and great physician observes, "Though remote, it is no less sure." Accepting, therefore, the condition of society as it is, with all its sanitary, hygienic, medical, and social difficulties and deficiencies, we venture to throw our views into the incongruous mass of mental darkness and antagonism which at present so seriously afflict us; and although we dare not anticipate any very favourable reception from our professional friends, we feel assured that our labour, humble as it is, will not be without its reward.

Thousands are already impressed with the conviction that the mission of medicine in its application to the prevention of disease and saving of life has commenced, and that at no very distant date the increase and diffusion of knowledge in this, as in all other great questions, will work the consummation out.

What then, we ask, is fever? The reply is, a vitiated, poisoned, obstructed condition of the blood, more or less malignant, in proportion to dietetic, atmospheric, or other deteriorating and injurious causes;—most common wherever ignorance, poverty, and a low state of vitality abound; and slowly or actively developed, according to the quality, quantity, or kind of animal, vegetable, aqueous, miasmatic, parasitic, or other poison or poisons absorbed and incubated,

enthetically, or within the system, and communicated by contagion or otherwise, according to the nature of the disease.

We reason, it will be thus seen, from what we know as positive to that which is not so, and in dealing with abstract realities, where we may not pronounce mathematically, we are content to decide in favour of rational 'theory.'*

INTERMITTENT FEVER *(Ague).*

Description.—No better evidence can be given of the truth of the theory which we seek to establish as the basis of *fever* than this disease, inasmuch as its character is so positive that it is difficult to doubt its origin:—"We see certain effects resulting from positive causes, uniformly producing similar results, which are never found excepting under similar or the exact same circumstances. *Ague* or *Intermittent*

* "The blood,—that most elaborate and beautifully-perfected food provided to support the complicated energies and actions of the animated frame,—may be rendered unusually and hurtfully impure in either of two ways: it is possible that its own impurities, generated by the ordinary working of its own machinery, may not be removed in consequence of some impairment or fault in the separating *(excreting)* organs; it is also possible that subtle impurities may be blown through the ventilating chamber (the lungs) into the blood, in place of pure air; under either circumstances the disordered blood is flushed to every part of the frame, carrying with it derangement and discomfort—*every fibre of the frame gets poison where it looked for food* (healthy blood). The general derangement produced in this way by the circulation of impure blood through the system is known as *Fever*. The name is derived from one particular symptom in the disorder. The skin is burning hot. The word fever comes from the Latin term *ferveo*, to be hot. The skin, however, only shares the disarrangement of all other parts of the frame. Every organ in the fabric labours and groans under the oppression. There is quick heavy breathing, because the lungs are more or less weakened and choked,—the strokes of the force-pump are rapid, unsteady, and hesitating. The digesting bag (stomach) loses its dissolving power, and seeks to reject the burthen it can no longer bear. The brain is now over worked, and languid and weary. The limbs ache, and cease to perform their accustomed offices. The liver, lungs, the kidneys, the mucous membranes, and the skin, at first throw depraved matters in unusual abundance through their waste pipes, and then, under the exhaustion of over work, fail in their important labours. The dry hot skin, that is so striking a characteristic of fever, on account of its being a derangement occuring in the external surface, which comes under extraneous observation, is due to the pores of the skin being stopped, and the perspiring tubes loaded with and choked with matters that are pressing in vain for escape."†

† "Elementary Physiological Science." Jarrold and Sons, London: 1869.

Fever, *Remittent Fever*, and *Yellow Fever* [it is universally admitted.—*Ed.*], are endemic, and originate in one external cause, viz., *Marsh Miasma*. Apart from their common origin, they have many other resemblances, that we may safely assume them to be varieties of one and the same disease, *the difference being due to the variation in power or intensity of the primary or exciting cause*. Thus, if the marsh poison introduced into the system be small in amount, the body suffers only occasionally, a febrile attack coming on every second or third day, or after longer intervals. If the dose be larger, the interval between the paroxysms is shorter, and no longer intermissions [intermitting.—*Ed.*]—intervals of freedom from fever—but mere remissions of a more intense febrile condition. If, again, the system has received a still more powerful dose of the paludal poison, then the fever becomes continuous, and those internal organs, which in the former cases were, comparatively speaking, only slightly affected, are now fearfully deranged.

"*Between intermittent and remittent fevers, and between remittent and yellow fevers*, there are in truth no lines of demarcation, they run into each other most completely.

"Given a certain source of paludal miasma, the intensity of the fever generated by it will be, *cæteris paribus*, in proportion to the external temperature. *In the Arctic regions* these fevers are unknown, and the mildest variety of them rarely passes beyond the fifty-sixth degree of latitude. In the latitude of London, and five degrees south of it, the disease assumes the intermittent type; south of this line its character becomes remittent; still nearer the equator, remittent becomes indistinguishable from *yellow fever*.

"These fevers are of great interest and importance to a nation which has soldiers and sailors scattered over the whole of the habitable globe, and serving under circumstances of great exposure, fatigue, and privation. *Remittent Fever*, though by no means unknown in England, assumes in some of our dependencies a character of great malignity, rivalling, and even surpassing, the oriental plague itself in the violence of its attack and the mortality it occasions. The records of our army serving abroad show that, even if we include stations in which the disease is unknown or of very rare occurrence, *one soldier* in every *eight* is attacked by *Remittent Fever*, of which number at least *one-eighth* dies. If, however, we exclude from our calculations the stations in which *Remittent Fever* is wholly

or nearly unknown, the attacks exceed *one* in *seven*, and the deaths amount to between a *seventh* and an *eighth* of those attacked. The mortality, however, varies very widely in different places. In the TENASERIM provinces it is as low as *one in twenty-seven;* at BOMBAY, *one in twenty-five;* at MALTA, *one in twenty-four;* whilst it destroys *two in eleven* in CEYLON; *four in eleven* in the BERMUDAS; and *one in two* in WESTERN AFRICA, on which fatal coast the attacks are nearly equal to the number of soldiers employed.

"The disease sometimes derives its title from the places in which it prevails, at other times from some prominent symptom. Thus we have the *Walcheren*, *Levant*, and *Mediterranean Fever;* the *Jungle and Hill Fever* of the EAST INDIES; the *Lake Fever* of AMERICA; the *Bulam*, SIERRA LEONE; *African* and *Bengal Fever;* the *Gall Fever* of the NETHERLANDS; the *Bilious Remittent* of the WEST INDIES; and the *Yellow Fever* of JAMAICA, GIBRALTAR and the BERMUDAS.

"The *Yellow Fever*, and the more severe forms of the disease, require for their development the combination of marsh effluvia, and a temperature exceeding 75 degrees Fahrenheit. The low-lying spots near the coast are its favourite haunts, and it is believed to disappear at an elevation of about two thousand feet above the level of the sea."*

CAUSES.—The reader will understand from the preceding "Remarks on Fever," and "Theory of," more of its true character than can possibly be obtained from any other source; and by comparing *Intermittent Fever* with other types of febrile disease, obtain a clear conception of the true character of all. The disease in this country is not so prevalent as it once was, and in the mountain districts is altogether unknown, except when carried there by an inhabitant of a district where it usually prevails. It is more common in the Fens, or marsh lands of Lincolnshire, Kent, and Somersetshire. Even in these, however, it has assumed a much milder type, since the marshes have been brought more under cultivation.

Its *predisposing* causes are an inactive condition of the liver and a low state of vitality, originating, doubtless, from blood poisoning slowly engendered within the system from *Marsh Miasma*, which, when thus vitiated, is in a condition to be acted upon at any moment with

* "Hooper's Physicians' *Vade Mecum*."

change of temperature, excitement, fatigue, excess, or disturbance of any kind; hence any incident, however slight, may become an exciting cause, and set up the fever in a mild or malignant form, according, as HOOPER has it, "to the largeness of the dose," or in other words, to the amount of poison the system is capable of holding in abeyance until the disease begins to be developed. A strong man can endure considerably more than a weak man, hence it is generally much more intense when it attacks the former.

DIAGNOSIS.—It commences, as does all other fevers, with alternate attacks of heat and cold, languor, and a feeling of uneasiness, which generally continue for several days, and sometimes weeks, before the disease is fully developed. Its varieties are, 1*st*, The *Quotidian* (one-day *Ague*); 2*nd*, the *Tertian* (three-day *Ague*); and 3*rd*, the *Quartan* (four-day *Ague*), either of which pass through similar stages,—that is to say, a *cold*, *hot*, and *sweating* stage, which are its distinguishing characteristics. The *Quotidian* is common in spring, commences in the morning, and passes through its stages in about twelve hours.

The *Tertian* is most common, and occurs both in spring and autumn. It commences at noon, and passes through its stages in about eight hours.

The *Quartan* is rare,—the most severe,—occurs more frequently in autumn, and generally begins in the afternoon. It passes through its stages in about six hours.

1st.—THE COLD STAGE.—Chilliness, shivering, and constriction of the whole body—nails are blue—fingers contracted—skin rough (*cutis anserina*, goose skin)—chattering of the teeth—head-ache—back-ache —quick small pulse—oppression around the region of the heart and stomach, accompanied at times with vomiting, which pass off and give place to—

2nd.—THE HOT STAGE.—Commencing with flushes of heat, which gradually increase, the skin becomes feverish and dry, the temples throb and the pulse hard and full; which, after enduring for about three or four hours, or more, give place to—

3rd.—THE SWEATING STAGE.—Profuse perspiration sets in, beginning generally with the head and face and extending all over the body, which in the course of an hour or so subsides. The skin now assumes its original condition, the pulse resumes its regular

action, the urine deposits a copious lateritious (red) sediment, and the patient, with the exception of weakness, feels comparatively well.

The distinction generally made between the *interval* and the *intermission* of the attack is as follows:—The *interval* is the space between the beginning of one attack and the beginning of the next; the *intermission* is the space from the end of one attack to the beginning of the next.

During the cold stage the blood passes from the capillaries to the internal viscera, chest, and head, inducing congestion or obstruction, and setting up disease of the liver and spleen, which, if improperly treated, terminate in chronic enlargement and induration, or "Ague Cake," as it is commonly called in *Ague* districts.

Treatment.—*Hygiene.*—If the patient is residing in a low marshy locality, whether the same in which the poison has been engendered or absorbed or any other, our advice is remove at once to a more healthful situation. What? say you, if the fever is actually developed and the paroxysm or attack has set in? No, not then, but as soon as the premonitory symptoms are discovered. Do not wait for the attack; but if it has really begun, there is no alternative but to do so until the disease is removed.

It is presumed to be in a state of incubation for about fourteen days, or as many weeks or months, as the case may be. But this is a piece of blind speculation. The fact is, from the moment the patient breathes the miasmatic poison the incubation of the disease commences. A strong man or woman from the hills of Malvern, Devonshire, Northumberland, or Scotland, or any other part where the *miasma* is not engendered, may go into the marsh districts and remain there for years,—all their lives, in fact, and die without suffering from the fever at all. It may, nevertheless, have been slowly incubating in their systems, and although not developed in them, would be transmitted with the germ to their children. In like manner, a man or woman may leave the district and go to reside in a mountainous part of the country where the disease is unknown, and at the end of one or two years, or even more, from predisposition and the peculiar character of the poison, find themselves attacked or stricken down with the old fever. Their children, however, if they continued to reside in the same locality, although the predisposition may

have been 'transmitted,' will escape it altogether, or in other words, by removing the circumstances the disease will die out. This statement applies more to our own country as it now is, than as it was before the marshes were drained and cultivated. It will be understood from these remarks how very important the knowledge of hygiene and sanitary science really are in the treatment of disease. There is no greater error than the assumption that certain forms of disease are incubated within a given time. The saliva of a rabid dog commences to operate from the moment it enters the blood, although *Hydrophobia* may not be developed for many months afterwards. The same may be said of *Vaccinia*. From the moment the virus is conveyed into the system any form of disease may be gradually incubated (agreeing with its morbid quality), which may not be fully developed for years. It may be *Scrofula*, *Consumption*, *Scirrhus*, *Syphilis*, *Cutaneous*, *Enteric*, or any other form of disease.

We have taken *Intermittent Fever* as the type of febrile disease generally, hence our object has been to make it clear to the humblest inquirer,—there is no mystery whatever in it; and they who read carefully "Remarks," "Theory," "Description," "Causes," "Diagnosis," and "Treatment," hygienical and medical, will, we believe, possess the clue with which to unravel the difficulties which have hitherto baffled the persistent exertions of the profession.

TREATMENT.—*Medicine.*—In every case, excepting such as may have become chronic and greatly reduced, prescribe—

℞ Podophyllin ..... One grain.
Zingiber (Ginger, in powder) ..... Ten grains.

In a little roast apple or other simple vehicle ; and in about six or eight hours after (whether the bowels have been relieved or not)—

℞ Eupatorium Perfoliatum (Boneset herb, dry)..... One ounce.
Lobelia (seed and herb) ..... One drachm.
Capsicum (Cayenne, in powder) ..... Ten grains.

Infuse in a full pint of boiling water (in a covered vessel), let it stand for about one half hour, strain, sweeten with treacle, and give in wineglassful doses every ten minutes, until the whole is taken.

This will act as an *emetic;* after which prescribe, as a "Medicated Bath,"—

℞ Cannabinum Eupatorium (Hemp Agrimony herb, dry) ..... Four ounces.

Infuse in a gallon of boiling water, and as soon as it is sufficiently cool, let the whole surface of the body be well bathed all over.

The patient should stand in the infusion while this is being done, after which the skin should be well rubbed with a dry cloth. Cleanliness is of very great importance, inasmuch as the poison is thrown out of the system with much greater rapidity.

Those who know anything of the treatment practically will understand why we prescribe the "Podophyllin," "Emetic," and "Medicated Bath." The two former carry the morbid accumulations from the primæ viæ (stomach and intestinal canal), whilst the latter relieves the skin and kidneys, and calls up an action in the circulation. The 'latter,' it will be seen, is not given until the two former have operated. Presuming that this has been done, and it is a very simple affair, apply a bottle of hot water to the feet, and prescribe—

℞ Agrimonia Eupatoria (Agrimony herb, dry) ..... Half ounce.
Daucus Carota (Wild Carrot herb, dry) ..... Half ounce.
Capsicum (Cayenne, in powder)..... Ten grains.

Infuse in a pint of boiling water, let it stand until sufficiently cool, strain, and drink one half, unsweetened, at bed time, and the other half next day cold, in three doses.

Less or more of this may be taken, according to the strength of the patient. The great consideration is to eliminate the poison from the blood through the natural outlets, and sustain the strength while nature performs the cure. The physician is but nature's assistant.

Ventilation should be carefully attended to, and there is little else required than to keep the window down an inch or two from the top, night and day, and the room comfortably warm and dry.

There will be nothing more necessary after the system has been freely relieved and brought under the action of the medicine than attention to simple things.

Apple tea may be drank freely throughout the day, and the "Emetic" and "Medicated Bath" renewed about once or twice a week. As an ordinary hepatic and aperient, prescribe—

℞ Compound Powder of Leptandrin .... Two grains,
Daily, or more or less, as requisite.

The only question to consider is how best to relieve the liver and spleen without reducing the strength, and carry at the same time the morbid accumulations out of the blood.

In addition to the medicines and bath recommended, prescribe—

℞ Berberis Vulgaris (Barberry Bark) ..... Half ounce.
Cinchona (Peruvian Bark) ..... Half ounce.
Capsicum (Cayenne) ..... Twenty grains.

Crush, and gently simmer for one hour, in a covered vessel, in one pint and a half of soft spring water, down to a pint; strain, and take a small wineglassful three times a day.

Should the medical attendant prefer the active principles, he may prescribe—

℞ Salicin ..... Twenty grains.
Hydrastin ..... Twenty grains.
Capsicum (Cayenne) ..... Ten grains.

Mix, divide into twenty parts, and give one part three times a day.

This is a most efficient medicine, and rarely fails to meet the severest cases. Or the following remedy may be prescribed—

℞ Quinine ..... Thirty grains.
Eupatorin ..... Twenty grains.
Capsicum (Cayenne)..... Ten grains.

Divide into twenty parts, and take one part three times a day.

The "Medicated Vapour Bath" may be employed, if the medical attendant should prefer it, in many cases with very great advantage.

The disease is often complicated with *Dyspepsia* and, as already stated, *Induration of the Spleen and Liver*, which it will be necessary to treat. The primary consideration, however, is to subdue the fever; this done, the paroxysms will cure themselves.*

REMITTENT FEVER.

Description.—This disease is in many respects similar to the last, and the difference consists principally in its being constant, that

* In addition to the single attack of *cold*, *hot*, and *sweating* stages, every day, second day, and third day, there is what is called the *double quotidian*, *double tertian*, and *triple tertian*, also the *double and triple quartan*, that is to say, cases in which the paroxysms occur twice, and even three times, in the twenty-four hours. We would also note that the disease is often accompanied with neuralgiac pains, which, like the complications already named, require attention.

is, without the "intermissions." It is more common to children than adults, and is doubtless due to similar causes. We have pointed out the fact that the same poison, whether *atmospheric*, *animal*, or *vegetable*, produces different forms of disease in proportion to age and idiosyncrasy, and there needs no very large share of practical experience to understand it. Like all other fevers, it may be mild or severe according to the quantity and quality of poison absorbed or the resisting forces of the system.

It may be what is generally called *Infantile Remittent Fever*, *Mild Remittent Fever*, *Remittent Inflammatory Fever*, *Bilio-Inflammatory Remittent Fever*, or *Malignant Remittent Fever*. These different types, like *Intermittent Fever* already treated, are the result of climate, locality, age, habits of life, constitution, &c.

Causes.—*Infantile Remittent*, like almost every other form of disease, to a great extent may be due to hereditary causes, hence the child may be predisposed to it from birth. It may occur towards the end of the first twelve months, or at any time between that and the thirteenth year. It will be readily understood that wherever predisposing causes exist constitutionally, that any trifling change or disturbance may excite the disease, such as errors in diet, atmospheric changes, cold, sleeping in badly-ventilated apartments, want of attention to the stomach, bowels, &c.

Causes.—*Mild Remittent.*—See "Causes," *Intermittent Fever*, pages 509 and 510.

Causes.—*Remittent Inflammatory Fever.*—See "Causes," *Intermittent Fever*, pages 509 and 510.

Causes.—*Bilio-Inflammatory Fever.*—See "Causes," *Intermittent Fever*, pages 509 and 510.

Diagnosis.—*Infantile Remittent Fever.*—Irregular condition of the bowels or alternate constipation and relaxation, irritability of temper, peevishness during the day, feverish symptoms with drowsiness towards the evening, and slight improvement in the morning. These symptoms may continue for a few days almost unnoticed; in a short time, however, alternate fits of heat and cold occur, followed

with flushed cheeks, pains in the abdomen and head, stiffness about the neck, sickness, with fully-developed fever, and pulse ranging from 100 to 110 or 120. In some cases the food passes as it is taken, or very little changed. The abdomen and surface of the body are exceedingly tender and sensitive, but more particularly the spine. The disease in young children is often attended with *convulsions* towards its close, but in children more advanced with *delirium*. This is the most common form of the disease.

Diagnosis.—*Mild Remittent Fever.*—Uneasiness at the pit of the stomach, pains in the back and limbs, headache, throbbing at the temples, restlessness, particularly towards night. These symptoms are either accompanied or followed with shivering and alternate attacks of heat and cold, flushing of the face, nausea, and sometimes with vomiting and delirium. The pulse is hard, frequent, and full; thirst urgent, bowels constipated, urine scanty and high coloured. In about ten, or from that to eighteen hours, these symptoms give place to perspiration: the pulse declines or sinks considerably lower; the irritability, restlessness, nausea, headache, and 'delirium,' subside or disappear, with more or less *remission*, but no *intermission* of the febrile symptoms. This form of fever has certain critical periods, which may be looked for about the seventh, fourteenth, twenty-first, or twenty-eighth day. It rarely continues longer than the fourteenth day, particularly in warm countries.

Diagnosis.—*Remittent Inflammatory Fever.*—See "Diagnosis," *Mild Remittent Fever*, and *Intermittent Fever*, pages 510 and 511. Common to Europeans in hot countries, similar in character, but much more violent; terminates fatally, unless treated with great care, from or between the third and seventh day.

Diagnosis.—*Bilio-Inflammatory Fever.*—This form of the disease differs but little from the last. The brain, liver, and mucous surfaces are deeply implicated, particularly in the more advanced stages, hence it puts on very severe symptoms throughout.

Diagnosis.—*Malignant Remittent Fever.*—This is the worst form of the disease and, as a consequence, the most fatal. It is distinctly marked with a malignant or typhoid type from the beginning.

TREATMENT.—*Hygiene*—See "Intermittent Fever," pages 511 and 512.

TREATMENT.—*Medicine.*—Apart from the treatment recommended in "Intermittent Fever," pages 512, 513, and 514, there is very little to add. The indications are hygienically to attend strictly to cleanliness and ventilation, relieve the *primæ viæ* or *stomach* and *intestines*, induce *diaphoresis*, and sustain the strength by such light nutritious diet as the patient can take during the progress of the disease.

There is no other secret of cure, whether we treat *Intermittent* or *Remittent Fever* in their mildest or most malignant forms. Attend to the excretions, kidneys, liver, skin and secreting surfaces, and carry the morbid accumulation from the blood by acting freely upon the system with the "Compound Powder of Leptandrin," and other medicines. Should it be necessary, that is to say, if the system is so far exhausted that food cannot be retained upon the stomach, nourish the system by *enemata*. The Ulmus Fulva (slippery elm), or "Digestive Food," is most excellent for this purpose. The strength must be sustained, or the patient will be certain to sink in severe or malignant cases.

Once again, then, we say, remove from the system through the natural outlets the morbid accumulations which give rise to the disease, and sustain, through *enemata*, *diet*, and *medicine*, the strength of your patient. Do this, and the disease in its worst forms will cure itself, unless the patient has been previously much reduced, or the disease is deeply complicated with others of a serious character, which it often is.

See "Index" and "Appendix," "Balm Wine," and prescribe as a daily beverage after the symptoms have been subdued. As a restorative in fever, during the convalescent stages, it surpasses every other beverage.

FEBRIS HECTICA (*Hectic Fever*).

DESCRIPTION.—This is not 'idiopathic,' as the last, but simply *Remittent Fever*, dependent upon some other disease; and although treated distinctly, it is, nevertheless, no other than symptomatic of some deeply-seated disturbance, upon the cure of which its removal depends.

Causes.—Decay of any of the internal viscera, abscess of the lungs, knee, or hip joint, vertebræ, mesenteric, or suppurative disease of the bone, or any part of the system where, from debility and other causes, pus is absorbed and carried into the circulation.

Diagnosis.—Alternate attacks of heat and cold, chills succeeded by flushes, hot skin, followed by perspiration about mid-day, and also towards the morning, after which the febrile symptoms pass for the time. The pulse is quick and feeble, ranging from about 96 to 120, or even 130; the urine deposits a pinky sediment, the cheeks present a crimson blush (hectic flush), the palms of the hands and soles of the feet are hot, the tongue moist and red, whilst the patient gradually wastes. It is positive evidence of pus poisoning if thus distinctly marked, as it is in this and in some forms of *Consumption* (see pages 380 and 384). As the system declines the fever progresses, decay of the mucous membrane of the intestines supervenes, the appetite fails, diarrhœa, fever, and sweating increase, and death closes the scene.

Treatment.—*Hygiene.*—See "Index."

Treatment.—*Medicine.*—There is but one way of treating *Hectic Fever*, and that is, to 'treat' the cause from which it arises. That it is a disease of debility we know,—that the blood is vitiated or poisoned from the absorption of pus or disorganised corrupt matter we also know,—and that the indications of treatment can only point to the restoration of the system generally is certain.

Exercise in the open air and good nutritious food are of the greatest importance. The "Cold Towel Bath," in the morning, will also be very useful (see "Index"); milk diet, stewed or roast apples, figs boiled in milk, with good strengthening medicine, medicated wines, &c., for which see "Index;" see also "Treatment of Consumption," pages 384 to 389, and treat as directed.

Presuming, however, that the disease arises from decay of the *hip joint*, *knee*, *vertebræ*, *glandular*, or other disease, shall we, it may be asked, treat it in the same way? Exactly! is our reply. The system must be raised up through the renewal of the blood,—and whether the fever arises from decay of the lungs, bones, glands, or any other part of the body, the indications are the same, and the

same object must be kept in view. There is no other treatment that is of any avail, and the practitioner who presumes upon any other cannot fail to miss his way.

TYPHUS *(Continued Fever).*

Description.—This is one of the worst forms of *Continued Fever*, and is more or less common at particular periods in all civilized countries. It may be considered as the *type* of infectious fever generally, by whatever name we may call it, in the same sense as *Intermittent Fever* is the type of non-infectious fever. The young student is often bewildered with the nomenclature or names of different diseases, particularly those of fever. He cannot distinguish the nice distinctions, and when entering upon practice is at a loss to know what name to give to particular cases. Is it *Typhus* or *Typhoid*, *Enteric*, *Gastric*, or *Relapsing Fever?* In reply to this question we would simply remark that names are of small importance, apart from the fact that it is necessary to know them, and that when known, in common with all medical men, he is licensed to use any name he pleases.

To distinguish *Intermittent Fever* from *Remittent* is not always difficult, nor these again from *Typhus*, but to distinguish the latter in all its changes, and give every change a distinct name, is doubtless a little puzzling at times to the most skilful. *Typhus Fever* may be Putrid, Malignant, Eruptive, Petechial, Maculated or Spotted, or it may be named after a locality or particular place of any kind. It has been called *Gaol Fever* in a gaol, *Camp Fever* in a camp, *Hospital Fever* in a hospital, *Ship Fever* in a ship, or *Parish Infection* in a workhouse. In any case, however, we understand the disease as essentially of a low type, marked even in its premonitory stages by extreme weakness, which gradually advances until the vital powers are reduced to a complete state of prostration, from which the patient passes into a condition of abject mental and physical helplessness. It has been defined as "Continued Fever of several days or weeks' duration, accompanied with extreme prostration, great disturbance of all the bodily and mental functions, having a strong tendency to cerebral complications, and characterized in most instances at an early period by a peculiar eruption on the skin."

Causes.—Anything that reduces the vital powers, such as impurity or deficiency of food, impure water, living in crowded ill-ventilated streets, houses, ships, prisons, gaols, or rooms; exposure, want of attention to cleanliness, and physical exhaustion. It is rare among the upper or even middle classes, and is most common in times of scarcity. Accepting these as its predisposing causes, we can easily understand how it may be *excited*, and with what rapidity it may pass into an epidemic.

No fever is so positively infectious as this. It first affects one individual and then passes from the individual to a family,—from a family to a street,—and from a street to a whole neighbourhood, unless proper means are taken to disinfect and arrest its progress. The poison once fully developed, exhaled, or thrown off from the skin and lungs, is inoculated and reproduced readily wherever it is inspired.

Diagnosis.—Like all other forms of fever, it commences with alternate attacks of heat and cold, aching of the limbs, pain in the back, lassitude, weariness, and disinclination to exertion of any kind. The breathing is short and quick,—pulse generally small and weak, or quick and full. The appetite fails, and the countenance puts on a dull, anxious, confused appearance. The tongue is coated with a thick dirty-white covering, and the bowels are generally confined.

The disease at first is often very indistinctly marked, hence it becomes difficult to distinguish it from any other form of fever, the symptoms being so obscure, they may, in fact, be mistaken for a common catarrh, the alternate attacks of heat and cold being so slight as to escape notice. In the course of three or four days, however, this uncertainty ceases—it puts on its premonitory character—and rapidly passes into active development. The fever may now be determined by the thirst, headache, throbbing of the temples, restlessness, irritability, heat of the body, suffusion of the eyes, confusion of the mind, dusky and inexpressive condition of the countenance, and gradual prostration. In about four or five days from the time of its development the patient becomes totally helpless, lies on his back, sleeps unsoundly or very little, mutters, starts, and wakes up unrefreshed. The tongue, which in its premonitory stage was covered with a thick dirty-white coating, now becomes dry and brown, and the urine is scanty and high coloured. As the disease advances, a

diffused florid rush makes its appearance, usually upon the chest and shoulders, occasionally on the hands, but rarely upon the face. In some cases the skin is covered with purple spots similar to flea bites, called "petechia." These symptoms announce the progress of the disease until about the seventh day, when the delirium becomes fully developed and the patient mutters incoherently and constantly, or talks loudly and wildly. The head is intensely hot, the face and neck more or less suffused with a dark copper-coloured blush. The teeth and tongue become black, the breath, exhalations from the skin, and excretions more offensive. After a time this gives place to *delirium* and *stupor* alternately, followed by deafness. The eyes put on a filmy appearance, the expression becomes vacant, the mouth opens, the hands tremulous and convulsed, catch at vacancy, or continuously pick at the bed-clothes. This condition may continue for twenty-four hours or more, after which, if no favourable reaction takes place, *coma* generally sets in, congestion of the lungs follows, and death closes the scene. This occurs generally about the fourteenth day; or if the patient passes through it, and sleep supervenes, and the skin puts on a gradually-increasing moisture, the pulse becomes more regular, the urinary and other excretions more natural, the tongue moist, and the patient craves for food, convalescence will have commenced. In the absence of these favourable signs, however, the pulse becomes weaker, the skin loses its heat, the fingers turn cold and blue, deglutition is arrested, collapse follows, and the patient dies worn out.

Treatment.—*Hygiene.*—This may be summed up in a few words. Good nursing, even temperature, cleanliness, and free ventilation.

Treatment.—*Medicine.*—From what has already been said it will be easy to understand the nature of the disease and the difficulties that surround it. Under some circumstances it becomes exceedingly fatal; and where recovery takes place, it is generally slow and lingering. Out of 4,787 cases admitted into the London Fever Hospital, 1,000 = 20·89 per cent. or 1 in 4·78 died. Deducting those cases which were fatal twenty-four hours after admission, the mortality falls to 19·56 per cent., or near 24 in every 100. "The mortality of typhus fever in America and Europe has not been exceeded by that of *Plague*, *Cholera*, or any other pestilential disease. . . It

has been recorded by a celebrated French professor (Dr. DESGENETTES) that at the end of the year 1813, while a humid state of the atmosphere prevailed, a malignant typhus fever broke out at *Torgau*, on the Elbe, and out of 25,000 soldiers comprising the garrison of that town, 13,448 perished from the disease in three months. It has been estimated that the epidemic typhus which prevailed in Ireland during 1740–41 carried off 80,000 persons; and the terrible epidemic that ranged in that country in 1817, 1818, and 1819, attacked about one-fourth, or a million and a half of the population in the course of two years.

"In *London*, *Liverpool*, *Manchester*, *Glasgow*, and other large towns, *Typhus Fever* is never absent: and in the more densely populated districts, wherever poverty, filth, impure air, and vice abound, the severest ravages of the disease are felt. . . . Dr. SOUTHWOOD SMITH has shown by the returns obtained from twenty Metropolitan Unions, that out of 77,000 persons who received parochial relief, 14,000, about one-fifth part of the whole, were attacked with the fever, and 1,300 died."*

Not a word more need be said, we feel assured, regarding the character of the disease. We see it at once in all its hideousness, and must be prepared to encounter it, if needs be, in its most malignant form. That the blood is saturated with a specific poison of a most malignant character there can be no room for even the shadow of a doubt; and if medicine has anything positive in it, it is evidenced in the indication of treatment to which the disease points.

In a state of putridity, such as *Typhus*, science speaks to the meanest understanding. "Carry out of the system (through the *primæ viæ*, kidneys, blood, and secreting surfaces) the offending agent," no matter at what stage of the disease.

If called at its incubation or latent stage, before the premonitory symptoms are developed; if after its development, or at any time afterwards, we have but to remember that from the moment the disease commences the functions of the *stomach*, *intestines*, *kidneys*, and *skin*, cease, and that whatever may have been taken into the system prior to the attack cannot fail to increase the putridity which, apart from other causes, is sufficient to destroy life. Having said this much, we would again direct attention to the few brief words on *hygiene*. Turn to them and consider their importance, not as they

* Reform Principles of Medicine. By W. BEACH, M.D., 1855.

may stand in relation to the patient, but also to the attendants.

Prescribe a "Medicated Bath" as follows:—

℞ Tussilago Petasites (Butter Burr herb, dry)... From four to six ounces.

Infuse in two gallons of boiling water, and when sufficiently cool let the patient stand in it whilst the whole surface of the skin from head to foot is being well bathed; after which use friction freely, or rub dry with a coarse warm towel; put into a well-aired clean bed, apply a stone bottle of hot water to the feet, and prescribe—

℞ Eupatorium Perfoliatum (Boneset herb, dry) ..... One ounce.
Podophyllum Peltatum (Mandrake, American, in powder) ..... Thirty grains.
Lobelia (herb and seed) ..... Thirty grains.
Capsicum (Cayenne, in powder)..... .... Ten grains.

Infuse in a full pint and half of boiling water, let it stand in a covered vessel, strain, and give (unsweetened) a wineglassful every ten minutes until the whole is taken.

The end sought is to act upon every part of the system at once. The skin having been already prepared, the stomach will be relieved before one half of the medicine has been taken. Not a drop should be wasted, however, for it is all wanted, and will meet the case in its most malignant form if there is anything like vitality remaining.

To those who know nothing of scientific medicine it may seem extravagant to prescribe so freely, but a very little reflection will suffice to explain its advantages, for whilst the *Eupatorium*, *Capsicum*, and *Lobelia* stimulate and relieve the system, the *Podophyllum Peltatum* is gradually absorbed, and eliminates or carries out of the blood, through the intestines and kidneys, the poison which sets up the disease. As an ordinary drink prescribe—

℞ Melissa Officinalis (Balm herb, dry)..... .. One ounce.
Tussilago Petasites (Butter Burr flowers, dry) ..... Half ounce.

Infuse in three pints of boiling water, strain, add a tablespoonful of brewer's yeast, and give *ad libitum*, sweetened with honey, so long as there is any thirst or desire for drink.

Apple tea may be also used with advantage in the same way.

We are to remember that this is a disease where all the powers of life become prostrated, and that in addition to eliminating the poison the strength must be sustained. We must leave nothing undone, therefore, and where the stomach refuses to take nourishment we may substitute *enemata* with very great advantage.

Prescribe an enema as follows:—

℞ "Digestive Food" ..... One drachm.
Boiling Milk ..... Half pint.

Pour on the latter, stirring it the while, and when about blood warm pass into the bowels.

Roast apples, or apples stewed in milk, may be used freely throughout the whole progress of the disease. Milk, in which figs have been boiled, crushed grapes infused in boiling water and sweetened with lump sugar, may also be taken with advantage.*

If the active treatment recommended is fairly carried out, little else will be requisite, inasmuch as it strikes at the root of the disease at once, after which we have simply to wait upon nature, that is to say, keep the skin and bed clothing clean, the room well

* We would remark, in concluding, that there is no form of disease which presents greater difficulties.

Dr. WATSON prescribes calomel, opium, tartar emetic, castor oil, and "Dover's Powder;" and when the cerebral symptoms are violent, he orders the head to be shaved and blistered.

HOOPER recommends similar remedies, and, in addition, "ice-water poured upon the head, in a small continuous stream, for the space of ten or fifteen minutes."

Dr. LENDRICK says,—"Among the many physicians distinguished in Dublin for their skill in the treatment of fever, none perhaps have attained so great a celebrity as the late Dr. HARVEY, nor has there appeared since, any one so conspicuous for the management of what seemed to be desperate cases. I endeavoured at an early period of my professional career to make myself acquainted with his rules of practice, and the most accurate information I could acquire was that his great secret consisted in doing *very little*. IT WAS A SARCASTIC REMARK OF HIS THAT THE PATIENT WAS IN GREATER DANGER FROM THE DOCTOR THAN THE DISEASE."

Dr. VALENTINI, an Italian physician, says,—"We should ever bear in mind in the treatment of this, and other types of fever, the conservative powers of the system, and which was illustrated in a contagious fever in Italy, 1817. To prove how much nature is capable of performing, and to what extent we should rely on her exertions,—in a great number of cases in this fever nothing was administered but copious drinks, either of pure water, lemonade, or emulsion of nitre." He then quotes a case in proof of the efficacy of his plan. "A soldier, thirty-three years of age, obstinately refused all medicines but an emetic, took nothing but lemonade and pure water, and at the end of the seventeenth day, although his case was considered hopeless, and beyond even the slightest chance, he nevertheless fell into a copious sweat, and recovered."

As an *addendum* to our remarks on the treatment of *typhus*, we would remind the student that it is often attended with serious complications, particularly of the respiratory system; and that any organ or part of the body, from long-continued exposure, poverty, and other causes, may have been in a state of congestion or actual disorganization prior to the development of the fever. Under such circumstances the difficulties are augmented, and the chances of recovery very much reduced.

ventilated, and the secretions and excretions regular, without violence of any kind. Prescribe—

℞ Compound Powder of Leptandrin ..... Two and half grains,
every second day, or when necessary,

and freely of *Balm*, *Angelica*, and wild carrot tea, in change, as daily drinks.

So long as the fever continues the surface of the skin may be bathed in slightly tepid water, daily, and friction used freely; or if the fever runs high, cold water may be employed with equal advantage. As a convalescent or restorative drink, after the severer symptoms have passed, prescribe freely "Balm Wine," and such nutritious diet as the stomach will admit, for which see "Index," "Appendix," and "Dietetic Table."

TYPHOID *(Enteric Fever)*.

Description.—No better evidence can be given of the truth of the theory propounded by the great father of medicine, viz., that "disease is a unit," or in other words, that the characters and types of all the different outward manifestations are but so many evidences of a disturbed or vitiated state of the circulation, upon which the integrity of the body depends, than the resemblance, approximation to, and tendency of one form of fever to run into another, and, as a consequence, the difficulty of sometimes distinguishing them under the same or similar circumstances. *Typhus Fever*, for instance, has been defined as "a continued fever, characterized by great prostration, and *a general dusky mottled rash, without specific lesion of the bowels;*" whilst *Typhoid Fever* has been defined as "a continuous fever, characterized by the presence of *rose-coloured spots, chiefly on the abdomen*, and a tendency to diarrhœa, *with specific lesion of the bowels*." That these types of disease may originate in similar causes we know, and that the difference in their outward manifestations, however various, arise from the effects produced by the action of distinct positive animal and vegetable poisons, we think beyond question. Without occupying our time, however, in discussing points upon which we may with much propriety agree to differ, we shall proceed at once to consider the

Causes.—Of the predisposing, little need be said beyond stating

that the disease is more common in the earlier than in the advanced periods of life, and more prevalent in autumn than at any other part of the year: we may also add, that whenever the mesenteric or any of the enteric glands have been affected as a complication of *Infantile Remittent Fever*, which in such condition is by some writers called *Enteric Fever*, that a low condition of vitality and a predisposition exist, which wait the opportunity only to be actively developed as the patient advances in years.

Of the exciting causes much greater certainty exists, and we may fairly say that the facts which have been established by direct observation, and the numerous instances which have been recorded, prove to a demonstration that exhalations from decaying and putrid animal matter, acting upon constitutions thus disposed, become the medium through which the disease is immediately excited. Dr. MURCHISON, in his work on the "Continued Fevers of Great Britain," cites the following cases:—

"1*st*. Twenty out of twenty-two boys, at a certain school, were seized with fever, accompanied with gastro-intestinal irritation. Two of the fatal cases were examined, and the usual lesions of Peyer's Glands (the clustered glands of the intestines first discovered by Peyer), and the solitary mesenteric glands (situated between the layers of the mesentery) were discovered. The cause was attributed to the opening, two days before the first case of illness, of a drain at the back of the house, which had been choked up for many years, and the distribution of its offensive contents over a garden adjoining the boys' playground.

"2*nd*. In the year 1835 an epidemic of enteric (typhoid) fever desolated a commune in the department of Ariège. Nearly a half of the inhabitants were attacked, and nearly a third of these died. The cause of the epidemic was traced to a stagnant pool, which was the receptacle of dead animals and of all the sewage of the district. Three times the pestilence returned, *and each time when* the wind was blowing over the infected water.

"3*rd*. All the residents, fifteen in number, of a farm-house in Peebles were seized with a fever, accompanied by so much gastro-intestinal disturbance that suspicions of poisoning were entertained. Three died. The only explanation of the outbreak was that all the drains and sewers were found closed up and obstructed with the accumulated filth of the privies and farm-yard.

"In these cases the poison was doubtless conveyed by the air. In the following case it appears to have been introduced into the system by water.

"*4th.* The inhabitants of thirteen out of thirty-four houses, in a certain crescent, derived their drinking water from a well at one end of the crescent, the remaining houses were supplied with water from another source. At the end of September it was evident that the water from the pump (well) was tainted with sewage. Early in October *intestinal* (typhoid enteric) *fever* broke out almost simultaneously in all the thirteen houses using the water."

These are, doubtless, strong evidences in favour of the belief that the disease is engendered and actively excited by specific putrid and decaying animal and vegetable poisons, whether conveyed through the air, water, or any other source. There are those, however, who say it is more frequently excited by the alvine secretions of persons suffering from the disease.

Whether it is contagious, like *Typhus Fever*, is a question of doubt, for we have no positive proof, "although the majority of physicians incline to the opinion that it is contagious in a slight degree."

Diagnosis.—*Typhoid Fever*, like *Typhus*, is often very difficult to distinguish, particularly in its primary stages, and the most skilful can do no more than take stock of the sanitary condition of the premises or neighbourhood, and wait upon time.

Hooper, whose pathological acumen, amid all the changes of treatment, remains unquestioned, speaking of these diseases, says,—

"Great muscular prostration and early cerebral disturbance, with depression of the senses and mental faculties, mark the onset of typhus; whilst symptoms, more or less obscure, of gastro-intestinal disturbance indicate the presence of enteric (typhoid) fever; *but sickness and diarrhœa may be absent, and* HEAD SYMPTOMS *may be prominent from the first in this disease.*"

From the above quotation we see where our primary difficulty lies, and should be in no hurry to give an opinion positively without further evidence. Like *Typhus* and all other fevers, it is ushered in with alternate attacks of heat and cold, followed by the symptoms already named; and although the diagnosis is at first uncertain, it is no longer so after the disease is fully developed. "Abdominal tenderness," the above Author says, "about the *umbilicus* and right *iliac*

fossa, and a *moist thickly-furred apthous tongue*, may inform us that the disease is *enteric*, and not *typhus*, *fever*. Light ochre-coloured fluid stools are diagnostic of enteric fever; and when the eruption appears, the diagnosis becomes certain."

It will be readily seen from this what the distinguishing characteristics are. The dusky mottling or eruption upon the skin, which appears about the fourth day, and gradually passes, as the disease advances, into *petechia;* the dry parched tongue and teeth covered with *sordes* or a thick dark coat of corruption, point distinctly to *Typhus;* whilst abdominal tenderness, apthous tongue, and spotted rose-coloured skin, in general distinctly marked about the seventh day, are pretty clear evidences in favour of *Typhoid*. The doubts and difficulties all pass, however, as the disease progresses, for now the tongue and lips crack, and become covered with ragged apthous ulcers, which, when the fever is protracted, also affect the *fauces pharynx* and *œsophagus*.

"It is upon the solitary and aggregated glands (PEYER's patches) *of the lower third of the ilium* that the disease expends its virulence. There we invariably find disease after death from *Enteric Fever*. In its early stages (on the fifth or sixth day) these nominally obscure glands are swollen and prominently elevated above the surrounding mucous membrane; they are pale, rounded at the margin, and soft. Next they become vascular, the blood vessels of the surrounding mucous membranes are seen converging towards their centres, and the corresponding part of the peritoneum presents a vascular patch of dilated vessels. The enlargement and vascularity increase, and the swollen gland becomes softened and abraded; and this first stage of degeneration is quickly succeeded by sloughing or ulceration. Sometimes a whole PEYER's patch is covered with a discoloured apthous-looking slough. When the 'slough' is separated, or the ulcer advanced, the surface exhibits a rugged granular appearance, being formed of angry-looking granulations of various sizes, enclosed in an irregular network of sloughy areolar tissue. The edges of the ulcer are hard and elevated; externally, they are round and smooth; internally, they are ragged with excavations. In proportion as the base of the ulcer nears the peritoneum, so does that membrane increase in inflammation, and may be covered with plastic lymph. If the ulceration affects this covering, as it often does, perforation sooner or later must result.

"The mean age of 1,772 cases admitted into the London Fever Hospital during ten years was as follows:—One half were between 15 and 25 years of age; one-fifth were under 15; less than one-seventh were above 30; and less than one-sixtieth exceeded 50."*

We see clearly from this view of *Typhoid Fever* what the disease really is, and what we are called upon to do. Before proceeding to treat it, however, we would briefly remark that the mortality approximates very nearly to that of *Typhus*, although it is not so prevalent among the poorer as the more fortunate class. Death is generally preceded by *coma* (deep sleep, torpor) in *Typhus* about the fourteenth day; and by *asthenia* (extreme debility) in *Typhoid* about the third or fourth week. This is the accepted rule; the exceptions, however, are numerous.

TREATMENT.—*Hygiene.*—See "Typhus Fever," page 521.

TREATMENT.—*Medicine.*—From the want of success which has hitherto marked the treatment of these forms of "continued fever," some very eminent practitioners consider it best to do nothing, or in other words, 'to do nothing medically,' but direct their attention to hygienic measures only; and report says they are more successful than those who treat it with drugs, which is doubtless correct where 'drugs' are of the class generally employed.

Dr. GRAVES, one of the most eminent practitioners of modern times, speaking to the students in one of his clinical lectures, at the Meath Hospital, Dublin, in condemnation of the treatment which then obtained, said,—"I believe there is no disease in which success so much depends on treatment as in fever. It is difficult to explain how it came to pass that a contrary opinion could be promulgated in Dublin. Something must be attributed to the neglect or incapacity of those whose duty it was to teach the truth. The chief cause, however, may be traced to the activity and zeal which inspired some, not only to uphold their own branch of the profession, but to decry—I had almost said to defame—that which they were pleased to call *pure medicine*. With characteristic inconsistency, however, these gentlemen who declared that the treatment of fever was at best useless, readily engaged in its management in private practice, and

* Guy and Harley's HOOPER, page 330. 1864.

while they openly professed their disbelief in the efficacy of any medicines, they busily employed themselves in prescribing *pills* and *draughts* without number for their own fever patients. That they thought their treatment of some value might be gathered from their acceptance—their invariable acceptance—of pecuniary remuneration from the suffering grateful friends, who little dreamed the while that the hands which with autocratic movement so readily grasped their fees, belonged to persons who held, nay, who maintained the opinion that the treatment of fever was all a farce. Posterity will scarcely give credit to this fact, and will probably refuse to believe that such an opinion could have been advanced in what we are pleased to call an enlightened age."

Dr. GRAVES must have been a bold man to have dared thus to speak in opposition to authority, and few are they who are prepared to believe him. We beg to assure our readers and professional friends, however, that we have listened to the same teaching in St. Bartholomew's, London. "Nothing positive could be taught," it was said, for nothing was known; and the only advice was, since the mortality was nearly the same under all kinds of treatment, for every student to use his own judgment. That it is right for every well-trained practical man to do this we admit, but that students should be so taught is intolerable, and bespeaks a condition or dearth of sound practical therapeutic knowledge most truly lamentable.

The treatment of *Typhoid* (enteric fever) is indicated, doubtless, by the specific character of the poison, age, and idiosyncrasy, of the patient. We know well that poisons, whatever their character, have a specific action and a peculiar affinity for different parts of the body, hence we are enabled to conclude pretty accurately from the symptoms what any particular poison really is. Take just two extremes. *Strychnine* acts immediately upon the spinal cord, producing *Tetanus* and contraction in the vertebræ or spine; whilst the saliva from a rabid dog, acting slowly and almost imperceptibly through the blood, affects every part of the system, and after, it may be, weeks or even months, manifests itself in the well-known symptoms of *Hydrophobia*. Passing from these to *Scarlatina*, we know that the poison of that disease has an especial affinity for the parotid glands and fauces, hence its action throughout is more or less upon the throat; whilst that of *Diphtheria* is more

immediately upon the entrance of the larynx and œsophagus. The poison of *Typhus*, on the other hand, more or less affects the whole system, including the brain, for which it appears to have a special affinity; whilst the poison of *Typhoid*, by some attractive quality with which we are unacquainted (as we are with all the others), is attracted more immediately to the mesenteric or enteric glands.

The question now comes, What are the indications of treatment? The reply is, eliminate the poison through the natural channels,—that is to say, the *stomach*, *kidneys*, *lungs*, *intestines*, and *skin*. "But the stomach," it may be said, "is not immediately implicated in the disease." We reply,—the stomach is the centre of sympathies, and in treating it we treat the whole system. Look well, then, to hygienic measures, and prescribe the "Medicated Foot" or "Vapour Bath" (see "Index"), after which—

℞ Myrica Cerifera (Bayberry, in powder)..... One drachm.
Zingiber (Ginger, in powder) ..... Twenty grains.
Lobelia (herb and seed, in powder) ..... Half drachm.

Infuse in a pint of boiling water (in a covered vessel), let it stand until about lukewarm, strain, sweeten with lump sugar, and give in wineglassful doses every ten minutes.

The stomach will, without doubt, be acted upon freely before one half has been taken. Give the whole, however, relax the system, and excite diaphoresis. This, with an *enema* of "Digestive Food" daily, and the following, will, if taken in time, cut the disease short at once, and so mitigate its virulence, that in nineteen cases out of every twenty it will pass off harmless. Prescribe—

℞ Ulmaria (Queen of the Meadow herb, dry) ..... One drachm.
Calamus Aromaticus (Sweet Flag, in powder) ..... One drachm.

Infuse in a pint and half of boiling water, sweeten with lump sugar, and take, as an ordinary drink, a wineglassful from four to six times daily.

As a medicine prescribe—

℞ Geraniin ..... Thirty grains.
Stillingin..... Twenty grains.
Leptandrin ..... Ten grains.
Zingiber (Ginger, in powder) ..... Twenty grains.

Divide into twenty parts, and take one part three times a day.

Should it be requisite to act a little more freely upon the bowels, prescribe—

℞ Compound Powder of Leptandrin.

From one to two grains daily, as necessary.

For "Dietetics" see "Index;" see also "Dietetic Table" in *Typhus Fever;* also "Index," "Balm Wine" and "Ulmaria Wine."

From the condition of the *mesenteric* and *enteric* glands, it will be readily understood that the *diarrhœa*, *ulceration*, and *perforation* of the intestines, which follow as concomitants of the disease, arise purely from the morbid condition of the blood, and that there is no other way of preventing this but through its sustention and restoration. Anything that fails to do this must also fail to arrest the disease.*

Of the complications that attend *Typhoid Fever* nothing need be said, beyond simply to remind the student that they require careful attention.

* There is nothing more distressing than to witness the efforts of earnest men in search of truth, and know at the same time that they dare not seek it outside the dark circle of error which surrounds them. Let us briefly glance at a case in point (we quote from the *Medical Times* of February 5th, 1870). B. Kelly, M.D., L.K.Q.C.P.L.R.C.S., Edin. (Imposing Titles), speaking of fever generally, says, "The treatment of fever has been as conflicting and diversified as have been the opinions of physicians respecting its pathology. When the inflammatory theory was in vogue, bleeding, blistering, and purging were pressed into service with terrible effect, *as shown by the awful mortality which attended this form of treatment.* And it has not seldom happened that the disease has been mistaken by a similarity in outward appearance with the phenomena of some local phlegmasia, and doctored accordingly." He then, after exposing old errors, assumes that he has discovered a method of treating 'typhoid fever' that cannot fail to commend itself to every one. "Belladonna," is his grand panacea. Hear him! "When called upon to see a patient in fever, I *usually wait, if it be yet in its incipient stage, till all or most of the prominent symptoms are well developed before I venture to prescribe the drug.* By doing so, I have *the advantage and gratification* of witnessing its effects in all their physiological force, *while I avoid the possibility of making a mistake in diagnosis.* If the patient be an adult and vigorous, I do not hesitate to give from twenty to twenty-five drops of the officinal tincture (Belladonna) of the British Pharmacopœia *every four hours.* This dose must necessarily vary to suit individual ages and constitutions. The following is the formula I generally employ :—

"℞ Tinct-belladonnæ ..... ℥ ij.
Syrupi Aurantii ..... ℥ ss.
Aquæ Menth. Pip. ..... ℥ vijss.

"Ft. mist. Dosis; Pars Sexta omni quartâ horâ sumenda."

Which, in plain English, means—

℞ Tincture of Belladonna ..... Two drachms.
Syrup of Orange Peel ..... Half ounce.
Peppermint Water..... Seven-and-half ounces.

Mix, divide into six parts, and give one part every four hours.

"As the whole of this mixture is usually consumed in twenty-four hours, and as it is repeated with very little or no variation, day after day, for generally no less a period than two weeks, we may well imagine *the enormous quantity of narcotic that may be used with impunity*, especially when the system is fully under the influence of an agent like the poison of typhoid fever. *I have never known anything* more serious than dilatation of the pupils (which I look upon as an admirable criterion of the safety of the therapeutic action) and slight dryness of the fauces to attend its administration.

"The most remarkable effects of belladonna perhaps are shown by the suddenness with which the patient *recovers his intellectual faculties* and the *full power* and control of his muscles. *The latter he often takes a pleasure in exercising, by rapidly extending and flexing his arms*—a circumstance which he adroitly wields as an argument in his appeals to the physician to allow him to get up and resume his ordinary avocation. *All this was well exemplified in a stalwart Englishman*, a patient of Dr. Samuel Giles, of New Cross, Deptford, whom I attended as *Locum tenens*, a little over a year ago."

The writer then goes on to state that this treatment "completely changes the outward manifestation of the disease. *Delirium*, *coma*, and *subsultus* (twichings of the limbs), quickly vanish, and are succeeded by *calmness* and *clearness* of the *intellect*, by *natural sleep*, and *complete control of all the voluntary muscles*. *Diarrhœa* is checked, and *healthy consistent evacuations* are established."

This is only a small part of the good, however, for "*appetite*, *temperature*, *pulse*, and every deranged function, all return to their normal state." That is to say, "*passive hæmorrhages*, *tenderness* of the abdomen, *hypostatic congestion*, and *ulcerations*, are all arrested *in limine*, and the deranged functions of the economy return to their original equilibrium, and are performed with the same regularity as in health."

Such is the story told by Dr. KELLY. But can it be true? you ask. Of course it is,—every word of it. But are there no shades to such a therapeutic picture? Let us see. "The patient after an inconceivably short space of time, usually from twenty-four to forty-eight hours after the administration of the remedy, wakes up, *so to speak*, and pronounces himself as well as ever; and *indeed to look at him he really appears so*. If, however, the physician be not *thoroughly on his guard*, and do not keep the patient in bed pending the ordinary course and duration of the disease, *serious consequences will almost inevitably follow*. This precaution is all the more necessary as both the patient and his friends *often become* clamorous, and unless gifted with more than a usual share of charity and subordination, may impute sinister motives to the ill-starred medical attendant. Under such circumstances, he should never neglect to impress upon them the important fact that favourable appearances, to the contrary notwithstanding, the disease must run a limited course; *and that relapses, always dangerous in themselves, are only to be prevented by watching the patient closely, and combatting untoward symptoms as they arise*."

Ever anxious to open our eyes to the light, and equally desirous of opening the eyes of others, we thought we could not do better

than publish the most wonderful treatment of Dr. KELLY for the world's benefit.

HAHNEMANN was satisfied with infinitesimal doses of this extraordinary remedy. The 432,000th part of a grain of the extract of belladonna was, he says, "according to my subsequent experience too large a dose." That the treatment of Dr. KELLY is a *leetle* extravagant, we fancy his "stalwart Englishman," at Deptford, who took such pleasure in flexing and extending his arms, is no bad evidence; and if such was its effect upon a strong man, what might it not be upon the delicate?

Again, he waits until the symptoms are well developed before he ventures to prescribe, that he may witness its effects in all their physiological force (rather ambiguous) with gratification, for fear he may mistake the diagnosis. How sensitive and scientific! At what period of the disease can he determine its true character? It is not until the seventh day that the well-defined rose-coloured spots which distinctly stamp it as typhoid fever make their appearance, and during the whole of that time this *sapient* medicine man looks on for fear he may "mistake its diagnosis."

RELAPSING FEVER *(Famine Fever)*.

DESCRIPTION.—It would have been altogether unnecessary for us to have introduced this form of fever but from the fact of its having lately become so exceedingly fashionable. By 'fashionable,' we mean that it was originally known as *Epidemic Remittent Fever*, or as some one of this class, of which it was considered simply as a type. It is at present classed among the contagious fevers, and is presumed to be distinguished from *Remittent Fever* by this fact, although it is well understood that some forms of the disease put on a malignant character, and like *Typhus* become, under certain circumstances, exceedingly contagious.* It is defined, in fact, as "a contagious fever of from three to seven days duration, abruptly terminating, and recurring after complete apyretic (intermissions) intervals of a week,

* See "Copeland's Medical Dictionary," page 948, vol. i., and compare "Bilious Inflammatory Remittent Fever," and "Adynamic or Malignant Remittent Fever," 'symptoms of' with 'symptoms' in, Guy and Harley, pages 335 and 336.

as *Relapsing Fever*. The disease, until very lately, was unknown. Not that febrile relapse was uncommon, but that it was not considered of sufficient importance to be treated as idiopathic; hence Dr. Beach, one of the most celebrated American writers, in his voluminous work, has not even named it; nor has Dr. Copeland, so late as 1858, considered it necessary to do so.

Causes.—Dr. Murchison thinks the predisposing causes are peculiar to recent London residents, and gives the following statistics:—"Of 300 cases admitted into the London Fever Hospital, in which the circumstance was noted, one-eleventh had not resided in London more than three months, and many only a few days; more than one-seventh had not resided more than six months; and considerably upwards of one-fourth not more than a year." It prevails more or less among all civilized peoples, and becomes epidemic in proportion to the wretchedness and privation existing for the time being; hence Ireland, Scotland, and England, appear to have suffered each in turn under similar circumstances. The immediate or exciting causes are analogous to those of *Typhus*, such as extreme poverty, overcrowding, poisonous exhalations from vitiated bodies, contagion, &c., &c. "There are fair grounds," it is presumed, "for assuming that the disease has been several times imported both into *England* and *Scotland* from *Ireland*. The Scotch epidemic of 1847, in particular, has been ascribed to the immigration of large numbers of destitute Irish." In cases of extreme poverty, overcrowding, and famine, fever assumes a malignant type by whatever name we prefer to call it.

Dr. Murchison and others have been lately detailing their experience of *Relapsing Fever* in this country. It may not be generally known that this disease has on more than one occasion extensively prevailed in certain parts of *India*. We lately traced its occurrence there in connection with the return of the muleteers who accompanied the Abyssinian expeditionary force: and we have been favoured by Dr. Bateson, of the Bengal army, with copies of some able documents which he drew up on the prevalence of this disease in the *Gaols of the Punjaub*. Dr. Bateson very distinctly traces the connection of the specific *Umballa Gaol Fever*, of 1864, with the arrival of a gang of prisoners from *Delhi*, the foul air of the dormitories,

during the sultry humid August, when the gaol was crowded, being the propagating medium.

In another document he fully discusses the causes that obtained, during the spring of 1866, in the *Umballa* gaols, when an epidemic of contagious *Jaundice Fever* (relapsing fever) again prevailed. The exceeding contagious nature of the disease, and the long periods of incubation displayed in most of the cases, led to some important practical conclusions as to the best methods to be adopted to prevent its diffusion. It appears to be more frequently fatal in India than in England.*

We see from this quotation that what is now called *Relapsing Fever*, in this country is simply a milder type of *Bilio-remittent* (jaundice) *Fever*, re-named by the editor of the *Lancet* and others, and that it is common to Europeans in warm climates. Everywhere similar results follow wherever similar causes obtain. Increase the intensity of morbid causation and the 'intensity' of disease is increased in proportion.

The ancient *Gaol Fever* of our own country is but the old *synonym* for modern *Typhus*, and the now fashionable *Relapsing Fever* nothing but a milder type of the more ancient ('*Plague*' as it was then called) *Malignant Fever* of Ireland.

"Sir William Temple informs us that hundreds of thousands of the population of Ireland were periodically swept off by the *Plague*, meaning, as it is believed, those epidemical fevers which we learn from the best medical authorities, were common to the country during the seventeenth century. . . . . In 1684, a very severe epidemic occurred. Four years afterwards it again made its appearance. About the year 1708 a similar calamity was again general, and it returned after a much shorter interval than before, and raged in the years 1718, 1719, 1720, and 1721; for it is a lamentable fact that the fevers of Ireland, especially those of the earlier periods alluded to, seldom subsided in less than three or four years; some indeed suppose that they were never wholly eradicated. Then again, from 1728 to 1732, there was a fever of five years' continuance, experienced after an interval of seven years only. The fever returned again after a lapse of eight years, and continued a much shorter time than before, *but it more than compensated, in the eyes of our modern*

* *Lancet*, January 29th, 1870.

philosophers, for the shortness of its duration, by the 'clearance' it made of the redundant numbers. In this dreadful visitation Dr. Ruthy, the accurate historian of the weather, health, &c., of Ireland, says one-fifth of the people perished. A lower estimate, and indeed the lowest, that of Dr. Rogers, computes the victims at this dreadful period at 80,000."*

Now, whether we accept these facts as peculiar to the seventeenth and eighteenth centuries, or reject them, the truth still remains; hence, we see similar results occurring under exactly similar circumstances, during the Irish potato famine of the present century; and many of us are old enough to remember the terrible sacrifice of life that took place during this fearful visitation.

Diagnosis.—Like all other fever, it commences with alternate attacks of heat and cold, which generally come on with little or no warning, and often while the patient is being engaged in his regular labour, accompanied or followed with headache and pains in different parts of the body, succeeded with a dry hot skin, hard rapid pulse, severe pain in the stomach, vomiting of dark bilious coffee-coloured fluid, and increasing fever. The tongue is covered with white fur, the bowels confined, urine scanty and high coloured. In the generality of cases *Jaundice* occurs about the fourth or fifth day, when the motions become black, and the headache more severe.

In the course of a week these symptoms give place to profuse diaphoresis, generally accompanied with diarrhœa, and at times with hæmorrhage from the bowels and kidneys. The fever now suddenly disappears, and the patient feels all but well; after a few days, however, or sometimes later, the disease returns, in a milder or more severe form, according to the intensity or character of the case. This may pass off again in the same way, and return under some circumstances with increasing force. In this way the patient may experience a third relapse, and die in a state of *delirium* or *coma* after a few hours. In milder cases the disease at times passes off with the cessation of the diarrhœa and perspiration without any relapse.

Treatment.—*Hygiene.*—See "Index," or "Typhus Fever," page 521.

* "Ireland: Its Evils and their Remedies," by Michael Thomas Sadler, M.P. 1839.

TREATMENT.—*Medicine.*—Prescribe a "Medicated Bath," as follows:—

℞ Eupatorium Cannabinum (Hemp Agrimony herb, dry) ..... Four ounces.

Infuse in a gallon of boiling water, and as soon as it is sufficiently cool, let the patient stand in it whilst the body is being bathed all over, for from ten minutes to a quarter of an hour, after which the skin must be well rubbed until it is perfectly dry. This done, prescribe—

℞ Podophyllin..... One and a half grains.
Zingiber (Ginger, in powder) ..... Ten grains.

Mix, and give in a little roast apple or any other simple vehicle.

After which prescribe—

℞ Agrimonia Eupatoria (Common Agrimony herb, dry)..... Half ounce.

Infuse in rather more than a half pint of boiling water, in a covered vessel, let it stand twenty minutes, strain, and add—

℞ "Digestive Food"..... One drachm.

Use as an enema.

The patient should now be put into a clean well-aired bed, and the following prescribed—

℞ Eupatorium Perfoliatum (Boneset herb, dry)..... Half ounce.
Capsicum (Cayenne, in powder) ..... Ten grains.
Lobelia (herb and seed) ..... Half drachm.

Infuse in a pint of boiling water, in a covered vessel, let it stand twenty minutes, strain, sweeten with treacle, and give in wineglassful doses every ten minutes until the whole is taken.

The purpose of this treatment will be readily understood by all who know what medicine really is, and we may as well say at once that only these can appreciate it.

Presuming that the patient has been carried through this course, there will be little to do afterwards but wait upon nature, nourish the system, attend to the daily secretions and excretions, watch carefully for complications, and treat them as they arise.

Be careful during the period of treatment to guard against indulgence or freedom of any kind; see that the apartment is well ventilated; and when a relapse occurs, treat it again and again, if necessary, in the same way. Should the diarrhœa continue, prescribe—

℞ Compound Powder of Leptandrin ..... One grain
daily; and as an ordinary drink—

℞	Bistortæ Radix (Bistort root, in powder).....	One drachm.
	Althæ Radix (Marshmallow root, in powder)	One drachm.
	Sugar (fine, in powder)	One ounce.

Mix well until the whole is well incorporated, after which infuse in a quart of boiling water, let the powder settle, and drink a wineglassful throughout the day every two hours, cold.

Should the disease be complicated with *Dysentery*, see "Index," and treat as directed. The same may be said of inflammation of the *larynx* and *trachea*, which sometimes accompany it. As soon as the 'complications' are met, and the disease has subsided, prescribe—

℞	Hydrastin	Twenty grains.
	Leptandrin	Fifteen grains.
	Zingiber (Ginger, in powder)	Fifteen grains.

Divide into twenty parts, and give one part three times a day.

It is little more that need be said of *fever* and its treatment, nor is it possible for "the student to miss his way if he carefully studies it throughout," that is to say, beginning with "Remarks—Theory of—Intermittent—Remittent—Typhus—Typhoid—and Relapsing. He will see that it changes its type as society changes its habits and fashions, and that the name—whatever it is called for the time being—in no way alters the disease.

We see it, in all its various forms, during the fifteenth, sixteenth, and seventeenth centuries: known in our own country as *Pestilential Fever* or *Plague*, the peculiar characteristic of which passed away with the Great Fire of London, 1666, although no less than 100,000 perished by the visitation in 1665.

Looking at *fever*, therefore, in all its variations as types only of one general cause, if we keep in view this fact, and treat it throughout upon 'one general' principle (presuming our views to be correct), we can scarcely fail of success.

Should it be assumed that our treatment is much more troublesome than that generally prescribed,—our reply is, Science knows nothing of 'trouble,' nor anything apart from the foundation upon which it ever rests.

For "Convalescent Drinks," "Medicated Wines," "Dietetics," &c., see "Index" and "Appendix."

RHEUMATISMUS ACUTUS *(Rheumatic Fever).*

Description.—This is a non-contagious acute fever, arising from blood poisoning of a character totally different from that of *Intermittent, Remittent, Typhus, Typhoid,* or *Relapsing Fever.* It is accompanied with distressingly acute muscular pains and swelling in the fibrous structure of the joints :—is more common to the young than to any other period of life; nor are the 'pains' confined to the joint or joints first attacked, but pass from one to another, returning again and again, according to the intensity or character of the disease.

Causes.—There can be no doubt but the predisposing causes, like all other forms of blood disease, have their origin in the peculiar idiosyncrasy of the patient. Hufeland attributes it to a muco-serous dyscrasis (morbid state) of the blood; nor is it difficult to understand how the disease may be excited when we are satisfied upon this point. The proximate or more immediate cause is doubtless obstruction of the circulation, from exposure, fatigue, cold, sleeping between damp sheets, getting wet and neglecting to change the clothes, throwing off the winter clothing too early in the spring, drinking cold water whilst in a state of perspiration, fatigue from over work, running, or physical exhaustion of any kind.

Diagnosis.—Pains in the back, severe catarrhal symptoms, rigidity of the limbs, accompanied with a chilly sensation and alternate attacks of heat and cold, followed with hot skin, thirst, swelling of the joints, and pains, often so severe that the slightest movement, even of the bedclothes, produces intense agony. As the fever advances the pains increase, the face becomes flushed, pulse full and bounding, eyes red, skin hot, and covered with an unpleasant exudation of an acid pungent character: the tongue is covered with a white thin coating, thirst excessive, appetite indifferent or altogether gone, urine thick and offensive, bowels constipated, limbs powerless, pains excruciating, particularly at night. The fever generally

subsides towards morning, when the patient obtains a little sleep, from which he suddenly awakes, as if frightened with an unpleasant dream. The disease is seldom immediately dangerous, but, from its affinity for the fibrous structures, the heart often becomes implicated, followed after a time with valvular disease, dilatation, or hypertrophy. The fever runs its course in about fourteen days, when the pains and swelling gradually subside, or failing in this, pass into a chronic form, which may continue, more or less, for years; or from the general shock to the system, other forms of disease may follow, and terminate in death.

TREATMENT.—*Hygiene.*—See "Index."

TREATMENT.—*Medicine.*—The indications of treatment cannot well be mistaken, seeing that the exudation from the skin, urinary deposits, constipation, and extreme pains within the fibrous structures of the joints, clearly point to the active cause. Carry the offending matter out of the system, and assist nature to complete her work of expulsion. Do not wait until the disease is fully developed, but attack it at once. Prescribe—

℞ Podophyllin ..... One grain.
Asclepin ..... Three grains.
Zingiber (Ginger, in powder) ..... Ten grains.
Mix, and give in roast apple, or any other simple vehicle.

After which prescribe, as a "Medicated Bath,"—

℞ Archangelica (Angelica herb, dry) ..... Four ounces.

Infuse in a gallon of boiling water, and, as soon as it is sufficiently cool, let the patient stand in it whilst the skin is being well bathed all over; after which use friction freely, or rub the body well with a dry cloth; put to bed, apply bottles of hot water to the feet and sides, and prescribe as an emetic—

℞ Archangelica (Angelica root, in powder) ..... Half drachm.
Eupatorium Purpureum (Queen of the Meadow root, in powder) ..... One drachm.
Lobelia (herb and seed) ..... One drachm.

Infuse in a covered vessel, in a full pint of boiling water, let the powder settle, strain, and give in wineglassful doses every ten minutes until the whole is taken.

This treatment, if carried out as soon as the premonitory symptoms make their appearance, will so modify the disease, that it will

run its course in considerable less time, and with far less suffering. Should the disease be fully developed, however, the patient will scarcely be able to bear the exertion either of the "bath" or "emetic," which case perspiration must be promoted through the application of 'bottles of hot water,' and milder but similar means.

Prescribe—

℞ Eupatorium Purpureum (Queen of the Meadow herb, dry) ..... One and a half ounce.
Archangelica (Angelica root, in powder) ..... One drachm.

Infuse in a quart of boiling water, in a covered vessel, let it stand twenty minutes, strain, and give freely until diaphoresis or perspiration supervenes. Keep it up for some hours, and

Prescribe at the same time, or shortly after—

℞ Compound Powder of Leptandrin ..... Two grains,
Daily, or every second day, as necessary.

To reduce the swelling and ease the pain in the joints, prescribe—

℞ Artemesia Vulgaris (Mugwort herb, dry) ..... Two ounces.

Infuse in three pints of boiling water, in a covered vessel, let it stand until sufficiently cool, foment; after which saturate strips of flannel and wrap round the joints as hot as they can be borne.

There is seldom anything more required in the treatment of this disease than to assist nature to carry out from the blood the morbid accumulations of *lactic* and *uric* or *lithic* acid which induce or set up the inflammation within the joints, and give rise to the distressing symptoms which accompany its development; and whatever fails to do this is worse than useless, inasmuch as it aggravates rather than reduces the pains.

In addition to the formulas already given, prescribe—

℞ Rheumatic Pills.
From four to six daily.

And in change with the saturated or hot flannels, prescribe—

℞ Liniment Saponis (Soap Liniment) ..... Two ounces.

Throw a little into the palm of the hand, and gently rub into the joints affected, after which wrap in flannel.

An emetic should be prescribed whenever the patient is in a condition to endure it, nor must anything be left undone to sustain the strength.

One of the great considerations is to prevent the disease from affecting the heart, hence the necessity of attacking it in time. The food must be light and nutritious. Milk, sugar, cream, and oily or fatty substances of every kind should be avoided. Roast apples, pears, or stewed apples may be used as freely as the patient pleases, and as an ordinary drink prescribe—

℞ Thinly sliced Apple or Lemon in Marsh Mallow or Barley Tea.

For Rheumatic Pills, "Linimentum Saponis," Apple and Barley Tea, Fever Drinks, Convalescent Drinks, &c., see "Index" and "Appendix."

It will be well to remove or change the bed linen as often as possible during the progress of the disease, and bathe the surface of the body whenever the exudation or perspiration has been excessive, or the skin becomes uncomfortable. The old treatment has been and is still exceedingly various and perplexing: bleeding, cupping, blistering, opium, quinine, alkalies, acids, mercurial inunction, calomel, digitalis, guaiacum, iodide of potass, Dover's powder, wine of colchicum, &c., &c.

Chapter XV.

CONSTITUTIONAL DISEASE, IDIOPATHIC AND INCIDENTAL.

REMARKS.

"WHEN THOSE SUBSTANCES ARE WANTING WHOSE FUNCTION IN THE ORGANISM IS TO SUPPORT THE PROCESS OF RESPIRATION; WHEN THE DISEASED ORGANS ARE INCAPABLE OF PERFORMING THEIR PROPER FUNCTION OF PRODUCING THESE SUBSTANCES; WHEN THEY HAVE LOST THE POWER OF TRANSFORMING THE FOOD INTO THAT SHAPE IN WHICH IT MAY, BY ENTERING INTO COMBINATION WITH THE OXYGEN OF THE AIR, PROTECT THE SYSTEM FROM ITS INFLUENCE; THEN THE SUBSTANCE OF THE ORGANS THEMSELVES, THE FAT OF THE BODY, THE SUBSTANCE OF THE MUSCLES, THE NERVES, AND THE BRAIN, ARE UNAVOIDABLY CONSUMED.

"A DEFICIENCY OF FOOD, AND A WANT OF POWER TO CONVERT THE FOOD INTO A PART OF THE ORGANISM, ARE BOTH EQUALLY A WANT OF RESISTANCE; AND THIS IS THE NEGATIVE CAUSE OF THE CESSATION OF THE VITAL PROCESS. THE FLAME IS EXTINGUISHED BECAUSE THE OIL IS CONSUMED.

"THE TIME WHICH IS REQUIRED TO CAUSE DEATH BY STARVATION DEPENDS ON THE AMOUNT OF FAT IN THE BODY, ON THE DEGREE OF EXERCISE, AS IN LABOUR OR EXERTION OF ANY KIND; ON THE TEMPERATURE OF THE AIR, AND FINALLY ON THE PRESENCE OR ABSENCE OF WATER."—*Liebig.*

In seeking to establish new ideas, or introduce anything contrary to custom, however palpable the truth or beneficial the change proposed, they must necessarily be met with opposition in proportion to the good likely to follow their reception; nor can there be any difficulty in understanding this if we reflect upon the nature of the human mind and the institutions of society. Men cannot understand that which has never been submitted to them, nor can any interests be felt apart from the aggregate of knowledge and "institutions" existing for the time being. Medicine is no exception to this rule, hence the difficulties that await every attempt at improvement. The great chemist and philosopher from whom we have just quoted has done more to place medicine upon a scientific basis than any other writer, but his labours have been productive of very little practical

medical advantage. Few, very few, trouble themselves to think, and they who do rarely apply his teaching to practice. "Nature," he says, "forms the foundation of every natural science,"—a truth not hitherto understood in its application to healing. We see the body built up from infancy daily, and know how the process of assimilation and excretion are carried on, but cannot conceive that curing disease depends upon the application of similar principles. "From the first moment that the function of the lungs or of the skin is interrupted or disturbed, compounds rich in carbon appear in the urine, which acquires a brown colour. Many, perhaps most, chronic diseases in man, are caused by a misproportion, or a disturbed relation of the equilibrium on the operations of the digestive and excretory organs, considered with reference to the lungs. Retaining the familiar illustration of the furnace,* every one knows that the accumulation of soot in a chimney, or the throwing on of an excess of fuel, interrupts the functions of the fire-place; that these causes act as would a stoppage of the grate below, through which the air has access.

* "To make use of a familiar, but not on that account a less just, illustration, the animal body acts in this respect as a furnace, which we supply with fuel. It signifies nothing what intermediate forms food may assume, what changes it may undergo in the body, the last change is uniformly the conversion of its carbon into carbonic acid, and of its hydrogen into water. The unassimilated nitrogen of the food, along with the unburned or unoxidized carbon, is expelled in the urine or in the solid excrements. In order to keep up in the furnace a constant temperature, we must vary the supply of fuel according to the external temperature, that is, according to the supply of oxygen. In the animal body the food is the fuel: with a proper supply of oxygen we obtain the heat given out during the oxidation or combustion of the fuel. In winter, when we take exercise in a cold atmosphere, and when consequently the amount of inspired oxygen increases, the necessity for food containing carbon and hydrogen increases in the same ratio; and by gratifying the appetite thus excited, we obtain the most efficient protection against the most piercing cold. The oxygen taken into the system is given out again in the same form, both in summer and in winter; we expire more carbon at a low than at a high temperature, and require more or less carbon in our food in the same proportion; and, consequently, more is required in Sweden than in Sicily; and in our own country an eighth more in winter than in summer. Even if an equal weight of food is consumed in hot and cold climates, Infinite Wisdom has ordained that very unequal proportions of carbon shall be taken in it. The fruits used by the inhabitants of southern climes do not contain, in a fresh state, more than 12 per cent. of carbon; while the blubber and train oil which feed the inhabitants of polar regions contain 66 to 80 per cent. of that element. From the same cause, it is comparatively easy to be temperate in warm climates, or to bear hunger for a long time under the equator, but cold and hunger united very soon produce exhaustion.

In the machine of the body, so infinitely perfect, there is a thoroughly equal relation of mutual dependence between the lungs, the intestinal canal, and the kidneys. Experienced and well-informed physicians have long known that the kidneys and intestines are the regulators of the respiratory process. The lower intestine is an organ of secretion,—it is the chimney of the organism. The fetid constituents of the excreta are the soot separated from the blood by this intestine; while the urine contains those constituents of the smoke, so to speak, which are soluble in water, or in alkaline, or in acid liquids." It will be readily understood from these remarks that disease results from a loss of the balance of the circulation, and that its removal depends entirely upon the restoration of the blood to its normal or healthy state.

The cure of an ulcer or wound, whether external or internal, like the cure of inflammation or fever, by whatever name we may prefer to call them, is determined by this principle, and he who knows nothing of the relative conflict between the external and internal forces which influence and govern life, nor how to adjust them to the necessities of each particular case, can scarcely be said to have acquired a knowledge of the first principles of the healing art.

"A starving man is soon frozen to death. The animals of prey in the arctic regions, as every one knows, far exceed in voracity those of the torrid zone.

"In cold and temperate climates, the air, which incessantly strives to consume the body, urges man to laborious efforts in order to furnish the means of resistance to its action; while in hot climates, the necessity of labour to provide food is less urgent.

"Our clothing is merely an equivalent for a certain amount of food. The more warmly we are clothed, the less urgent becomes the appetite for food; because the loss of heat by cooling, and consequently the amount of heat to be supplied by the food, is diminished.

"If we were to go naked, like certain savage tribes, or if in hunting or fishing we were exposed to the same degree of cold as the Samoyedes, we should be able with ease to consume half a calf, and perhaps a dozen of tallow candles into the bargain daily, as warmly-clad travellers have related with astonishment of these people. We should then also be able to take the same quantity of brandy or train oil without bad effects, because the carbon and hydrogen of these substances would only suffice to keep up the equilibrium between the external temperature and that of our bodies.

"According to the preceding expositions, the quantity of food is regulated by the number of respirations, by the temperature of the air, and by the amount of heat given off to the surrounding medium.

"NO ISOLATED FACT, APPARENTLY OPPOSED TO THIS STATEMENT, CAN AFFECT THE TRUTH OF THIS NATURAL LAW."

The blood holds in solution all the constituents of the body, and whether considered in relation to the reproduction, sustentation, or renovation of life, is the prime mover throughout the whole. The protoplasm of the primary cell in no way differs from the atoms which compose a healthy man, or restore a sick one; and the means, whatever these may be, by which this is accomplished, must be equally adjusted and equally natural. "How admirably simple," says LIEBIG, "after we have acquired a knowledge of the relation between plants and animals, appears to us the process of formation of the animal body, the origin of its blood and of its organs. The vegetable substances which serve for the production of blood contain already the chief constituents of blood ready formed with all its elements. The nutritive power of vegetable food is directly proportioned to the amount of these sanguineous compounds in it, and in consuming such food the herbivorous animal receives the very same substances which in flesh support the life of the carnivora.

"From carbonic acid, water, and ammonia,—that is, the constituents of the atmosphere,—with the addition of sulphur and of certain constituents of the crust of the earth, plants produce the blood of animals, for the "carnivora consume in the blood and flesh of the herbivora, strictly speaking, only the vegetable substances on which the latter have fed. These nitrogenous and sulphurized vegetable products, the albuminous or sanguineous bodies, assume in the stomach of the herbivora the same form and properties as the fibrine of the flesh and animal albumen do in the stomach of the carnivora. Animal food contains the nutritive constituents of plants stored up in a concentrated form.

"A comprehensive natural law connects the development of the organs of an animal, their growth and increase in bulk, with the reception of certain substances essentially identical with the chief constituents of its blood. IT IS OBVIOUS THAT THE ANIMAL ORGANISM PRODUCES ITS BLOOD ONLY IN REGARD TO THE FORM OF THAT FLUID, AND THAT NATURE HAS DENIED TO IT THE POWER OF CREATING BLOOD OUT OF ANY OTHER SUBSTANCES SAVE SUCH AS ARE IDENTICAL IN ALL ESSENTIAL POINTS WITH THE CHIEF CONSTITUENTS OF THE BLOOD."

Not another word, we feel assured, need be said in order to remove the dark cloud which has hitherto obscured the light of medical science. Apart from the blood there is no life, and anything which obstructs, reduces it in quantity, or vitiates it, deprives it of its

vitalizing qualities, impairs nutrition, and sets up disease, the character, intensity, and termination of which are governed by the deteriorating causes and resisting forces of life itself. Nor can there be any difficulty in seeing that the restoration of the body to its normal or healthful state depends upon the *vis medicatrix naturæ*, and the application of the means through which alone the curative bias can be obtained.

"Nature has denied the power of creating blood out of any other substance save such as are identical in all essential points with the chief constituents of 'blood.'" "Medicine," like "food," must therefore be organic, or it cannot possess life-force. In health and disease the same general law obtains, and every step we take contrary to that which nature has established is a violation of first principles, and like every error, whether in morals or physics, requires to be sustained by greater error, which, gradually increasing, finally plunge us into a vortex from which we can with difficulty extricate ourselves.

HYDROPS *(Dropsy).*

Description.—This is not an idiopathic disease, but a concomitant of, or sequelæ of some prior disarrangement. It has been defined as "an effusion of serum into the interstices of the areolar tissue, with or without effusion into serous cavities." When the extremities or any part of the body contains water or serum, it is called *Œdema* (swelling from an accumulation of water in the cellular or areolar tissue); and when the body is equally affected, it is called *Anasarca;* but if the serous cavities are affected, it is named accordingly. Within the membranes of the *brain* it is called *Hydrocephalus;* within the *chest*, *Hydrothorax;* within the *abdomen*, *Ascites;* within the *ovaries*, *Ovarian Dropsy;* and within the *scrotum*, *Hydrocele.* It arises from many causes, such as debility, fever, consumption, disease of the heart, kidneys, liver, &c.

Causes.—It is not always that the physician can accurately determine the cause of some of the local forms of the disease, particularly when it arises from mechanical obstruction, such as deeply-seated tumours within the pelvis, or aneurism of the pelvic or femoral

arteries. Dropsy supervening upon *Consumption*, *Disease of the Kidneys*, *Heart*, *Fever*, and general debility, is, however, recognised readily from its relative position to the causes from which it arises.

Diagnosis.—Debility, more or less, from one or other of the diseases of which it is a concomitant; swelling in the legs and feet, particularly towards night, which, gradually increasing, ascends upwards into the thighs, scrotum, and *prepuce* in the male, and *labia* in the female. It may be distinguished in the legs and thighs by the pitting which follows pressure upon the parts by the fingers; in the scrotum—from *Hernia* and *Orchitis*—by the swelling and transparency which is reflected through when a candle is held on the inner side; and in the *prepuce* and *labia*, by their clear bladder-like appearance. As debility advances the water increases, until the abdomen and chest become surcharged with fluid, and *Ascites* or *Hydrothorax*, or both, are fairly set up. The urine is greatly reduced,—deposits a thick waxy albuminous sediment. The skin is generally cold, dry, transparent, and white. After a time it ruptures or gives way, and the water, gradually escaping, blisters or excoriates the parts. In some cases sloughing takes place, which, when accompanied with pulmonary disease, fatty degeneration of the heart, or disease of the kidneys, may be considered beyond hope.

Treatment.—*Hygiene.*—See "Index."

Treatment.—*Medicine.*—In this, as in every other form of disease, the first consideration is the actual condition of the patient, age, sex, causes, &c. Should it arise as a sequelæ of *Measles*, *Scarlatina*, *Albuminaria*, *Hydrocephalus*, *Consumption*, or such other form of disease which, under certain conditions, may at any time accompany or follow it, see "Index," and treat as directed. It will be readily understood that much depends not only upon the disease which gives rise to it, but upon its varieties, inasmuch as each particular case requires some degree of modification or change of treatment.

Dropsy from *fever* is distinguished from *Dropsy* of *debility*, although both, more or less, are dependent upon the latter; and the same may be said of *Dropsy* of the *kidneys*; *pulmonic*, *ovarian*, and *cardiac Dropsy*. The indications of cure consist of evacuating the water and restoring the general health.

A case which has just now come under our treatment is much to the point. A Mrs. STRONG, age somewhere about sixty, mother of a large family, has suffered from constipation of the bowels, disease of stomach, liver, and general debility, more or less, for some two or three years, which we treated and cured during the spring of 1869. Early in the present year, 1870, she was attacked with the old symptoms, which we again treated successfully. After a time, however, *Dropsy (Anasarca)* supervened, and we were fearful lest it might terminate fatally,—not from the disease so much as from advancing years and the want of recuperative power in the system. The advantage of active treatment was never more manifest than in this case, for it was not till near three weeks after we had removed the disease for which we treated her that she named the "swelling of the legs and thighs," indeed we had concluded that she was quite safe for a time at least, and left her with that impression. Upon visiting her, however, as we did by request at the time named, we found not only that *Anasarca* existed, but that *Ascites* was rapidly advancing. To meet the case, and the conditions out of which it arose, and of which it was the sequelæ, we prescribed—

℞ Artemesia Absinthium (Common Wormwood herb, dry) ..... Two ounces.

Infuse in from two to three quarts of boiling water, and use when sufficiently cool as a "Foot Bath," fomenting the legs, thighs, and abdomen freely at the same time.

As a medicine we prescribed—

℞ Daucos Carota (Wild Carrot herb, dry) ..... One ounce.
Capsicum (Cayenne, in powder)..... Ten grains.

Infuse in a pint of boiling water, in a covered vessel, for twenty minutes, strain, sweeten with treacle, divide into two parts, add twenty drops of the following, and give one part hot in bed:—

℞ Podophyllin ..... Five grains.
Oil of Juniper ..... Half drachm.
Gum Acacia ..... One drachm.
Rose Water..... Two and half drachms.

Well triturate, or rub up in a mortar, until the whole is incorporated, put into a half ounce phial, bottle, and add as directed.

The other half of the infusion to be prepared in the same way, with the drops added, and given hot, at bed time the next night, after which from eight to ten of the drops only may be given three or

four times a day, in a teaspoonful of hot water, sweetened with honey.

This treatment completely removed the ædematous effusion in about forty-eight hours; the 'drops' were continued, however, until they were all taken.

As a tonic we prescribed—

℞ Hydrastin ..... Twenty-six grains.
Eupatorin ..... Twenty grains.
Capsicum ..... Ten grains.

Mix, divide into fourteen parts; one part night and morning, in a little roast apple or other simple vehicle.

There can be no difficulty in understanding that *Dropsy* in all cases is not idiopathic, but a disease of debility, dependent upon some prior disarrangement, and that it is not enough to remove the fluid, but in order to prevent a relapse, of which there is always a tendency, it is necessary to re-invigorate or strengthen the system; nor need a word be said of the difficulty attending cases very far advanced or greatly debilitated, nor of the chances against them, the whole of which are too well known to experienced practitioners.

Dr. Beach recommends the following, which is without doubt a most excellent remedy—

℞ Digitalis (Foxglove leaves, dry)..... One ounce.
Mentha Viridis (Spearmint herb, dry) ..... Two ounces.

Infuse in a full quart of boiling water, in a covered vessel, for twelve hours; strain, express, add a half pint of Hollands gin, bottle, and prescribe a half tablespoonful four times a day, gradually increasing it to one tablespoonful.

"The medicine, after about twenty-four hours," he says, "generally promotes a free discharge of water, and in cases where it is preternaturally collected in any of the cavities of the body, expels it. It is remarkably efficacious in *hydrothorax*, and also in other forms of *Dropsy*. The '*watery infusion*' acts very differently from the '*tincture*,' as one menstruum takes up an active principle which the other does not, hence the combination of water and spirit extracts from the *digitalis* the entire virtues upon which its medical qualities depend."

In Ascites (*Dropsy of the abdomen*) he prescribes a formula from Sydenham, who is reputed to have been one of the most eminent physicians of his age.

℞ Sambucus Nigra (Common Elder, Inner Bark) ..... Three handfuls.

Gently boil in a quart of milk and water down to one pint, half of which is to be taken night and morning until cured.

He also recommends in HYDROTHORAX *(Dropsy of the Chest)*—

℞ Artemesia Vulgaris (Mugwort herb, dry).

Make a strong infusion; add to every half pint a tablespoonful of 'Tincture of Digitalis,' and give from four to five tumblerfuls (he means of course wineglassfuls) daily.

There can be no doubt but that this is a very useful remedy, particularly if given with diuretics, such as queen of the meadow, wild carrot, juniper berries, dwarf elder, and others of the same simple character. He also recommends Elaterium (wild cucumber). It is a poison, however, and requires a great deal of caution, inasmuch as it acts powerfully as a hydragogue and cathartic. In addition to any of the simple diuretics named, it may be used in severe cases with advantage. The dose should not exceed one half grain of the Elaterium or extract, whilst the Elaterine (active principle) should not exceed one-sixth of a grain. This quantity, if given under rather than over, will be safer. We quote the following:—

"*Elaterium* is a substance obtained from the juice surrounding the seeds of this plant, and is so powerful a poison that a single grain has been known to act violently on man, but its strength and effects are uncertain; it is used in the form of an extract, and is a violent cathartic and hydragogue. Dr. CHRISTISON quotes a case of a medical man, in Paris, who, after carrying a specimen in his hat to his lodgings, was seized with acute pain, &c., in his head, succeeded by colic pains, fixed pains in the stomach, frequent watery purging, bilious vomiting, and some fever."

Dr. BEACH, speaking of Elaterium, says, "Two grains are a dose," which we think must have been inserted through some error of the printer, as the "tumblerfuls of Artemesia Vulgaris and Tincture of Digitalis" must have been.

In quoting thus freely, our object has been to give every facility to the student. We confess, however, that we have no faith in poisons of any kind, nor have we ever found it necessary to use them.

HYDROTHORAX, or *Dropsy of the Chest*, whenever there is power in the system, is best met as follows:—

℞ Senecia Jacobia (Ragwort herb, dry)	One ounce.
Podophyllum Peltatum (American Mandrake, in powder)	Half drachm.
Lobelia (herb and seed)	Half drachm.
Juniper Berries	One drachm.
Capsicum (Cayenne, in powder)	Ten grains.

Bruise the berries, and infuse in a quart of boiling water, simmer down to a pint and half, or for about one hour, in a covered vessel; let it stand until sufficiently cool, strain, express, sweeten with treacle, and give in wineglassful doses every ten minutes, until the whole is taken.

This will act as an *emetic*, *hydragogue*, and *cathartic*, and will do more to relieve the chest than all the poisons that can possibly be administered.

Ascites should be treated in the same way, using, instead of 'Senecia Jacobia,' *Sambucus Ebulus*, or dwarf elder.

The same may also be used in Anasarca, *Dropsy of the Legs*, or *cellular substance*, applying at the same time the "Medicated Foot Bath," as in the case of Mrs. Strong, already quoted.

We have merely to add that the complications, whatever they are, must be attended to, and that in proportion as the strength can be restored the tendency to relapse will be reduced. The disease, whatever form it may assume, or by whatever name it may be called, is one of debility, arising from a diminution of the *crasis*, or loss of vitality in the blood; and our hope of cure can only lie in removing the superabundant serum, and restoring to the former its normal or life-sustaining power.

Ovarian *Dropsy* is distinguished from *Ascites* by the protuberance on either side of the lower part of the abdomen, just above the edge of the pelvis, or where both the 'ovaries' are implicated on both sides; and from *Ovarian Tumour*, by the rapidity of its progress, the former being much more rapid than the latter. Its internal treatment in no way differs from *Ascites*. It may be greatly assisted, however, by the application of hot fomentations of Digitalis (Foxglove), or by soft cotton cloths wrung out of the same, applied hot, four times double, every other night. The *Artemesia Vulgaris* (Mugwort) may be used in change in the same way, both of which should be fastened and kept on during the night.

Hydrocele, or *Dropsy of the Scrotum*, is distinguished from *Orchitis* by its fluctuation and transparency. It, too, may be treated in the same way as *Ascites* internally; externally, however, cotton

bandages, as in *Ovarian Dropsy*, should be applied, saturated with 'Tincture of Digitalis,' during the night, covered with a piece of oiled silk to prevent evaporation. During the day the part should be simply covered and kept warm.

Fomentations of 'Artemesia' and 'Digitalis' may be used with equal advantage in this disease as in *Dropsy of the Ovaries.*

It is sometimes difficult to distinguish *Hydrocele* from *Orchitis;* as the same external treatment is applicable to both, however, there can be no harm done in case of an error in diagnosis.

Digitalis is liable to accumulate in the system if continued too long, on that account it should be watched, and used in change as recommended.

Of the practice of *paracentesis* or *tapping*, whether of the *chest*, *abdomen*, *legs*, or *scrotum*, little need be said, except that *Dropsy* is rarely or never cured by it, nor should we consider it in any other light than as a palliative.

As regards *ovarian* and *abdominal tumours*, which in some conditions may be mistaken for *Dropsy*, the practice is to operate or perform *ovariotomy;* but as this is always attended with danger, the responsibility can only be undertaken by the most skilful, which we are content to leave with them.

For "Tincture of Digitalis," "Diuretic Pills," "Formulas," "Medicated Wines," &c., see "Index" and "Appendix."

SCROFULA *(King's Evil).*

Description.—This disease has very much increased during the last century, in consequence of the numerous abnormal and unnatural conditions that have grown out of the incongruous social institutions which have gradually corrupted the blood and undermined or reduced the physical stamina of the people. We have more than once throughout this work directed attention to hereditary predisposition through germinal transmission, a law that can be traced more distinctly in this than in any other disease. *Scrofula* has been defined as a "peculiar state of constitution, characterised by want of power and tone, the deposit of tubercle in several organs of the body, and a tendency to indolent inflammatory swellings and chronic ulcers." Speaking of hereditary disease and the numerous morbid

changes that grow out of vitiated life, one of our most profound medical writers says,—"The diseases which have been most frequently traced to this cause are *Scrofula*, *Pulmonary Consumption*, *Gout*, *Epilepsy*, *Insanity*, *Cancer*, and *Asthma*. *Stone*, *Gravel*, and other urinary disorders, some cutaneous diseases, and hæmorrhoids, may also be added to the list. On the other hand, a sound constitution, and a frame destined to last to a very advanced age, are blessings that may be handed down through several generations.

"In extreme cases of hereditary disposition, all, or several of the children of a marriage have become subject, at or about the same age, to a particular infirmity, such as blindness, or have fallen victims to some fatal disorder, such as pulmonary consumption.

"This fact in the history of certain families has been recognised in the form of a special liability to certain acute infectious maladies, such as typhoid fever, scarlatina, hooping cough, measles, and diphtheria, attended by an equally special mortality. As the liability to these acute and fatal seizures shows itself not in any one epidemic or in any one spot, but in different epidemics, at long intervals, and in places very remote from each other, it is reasonable to attribute it to some common character in the person attacked, or in other words to *family constitution.*

"Hereditary diseases, as distinguished from hereditary tendencies to disease, are of comparatively rare occurrence. Few children, for instance, are born with tubercles in the lungs."

There are not wanting cases where 'children' have been so born, however, although the deposit is more frequently found in the mesenteric glands. Dr. WATSON says,—"I have seen lungs taken from the body of a fœtus stuffed with tubercles." We have, therefore, with respect to *Scrofula*, the rare conjunction of congenital disease and hereditary disposition. No one of the least observation can doubt that the disposition to consumption is very often transmitted from parent to child. We see whole families swept away by its ravages. Like other hereditary tendencies, it may skip over one or two generations and appear again in the next, just as family likenesses are known to do. There are other families in which we can trace no pre-disposition, but such families are perhaps few. A little leven is sufficient sometimes effectually to taint a whole pedigree. The tendency, however, exists in very various degrees. It may be so strong that no care, nor favourable combination of circumstances, will

prevent its local manifestation; or it may be so faint, that it would never break out into actual mischief if the exciting cause of scrofulous disease could be warded off. It is important, therefore, to know what those exciting causes are.

"The circumstances to which, acting separately or in combination, we most confidently ascribe the power of developing scrofula, are insufficient nutriment, exposure to wet and cold, impurity of the atmosphere, a want of natural exercise, and mental disquietude. To estimate the separate effect of each of these causes may be difficult, but their combined influence is unquestionable. There can be no doubt but that improper diet, or rather imperfect nourishment, is one main exciting cause of scrofulous disease. Yet it is not an easy thing to obtain evidence of this which shall be entirely free from fallacy. The disease occurs very often among the poor, but then it often occurs also in the families of the rich. * * * The greater prevalence of scrofulous disease among the poor may be ascribed in great measure to their frequent exposure to wet and cold. * * * That impure air promotes the evolution of scrofulous disorders we have proof on a large scale, in the great mortality produced by such disorders among the lower orders in large cities as compared with agricultural districts."

It will be seen from these remarks that Dr. WATSON throws a doubt upon one of the exciting causes which he gives of *Scrofula*. Impaired nutrition, there can be no doubt, has much to do with it, but this must not be confounded with insufficient nutriment or poverty of food, but to causes of quite a different character.

"A curious, but well-ascertained phenomena, connected with the subject of hereditary predisposition, is the disappearance of a peculiarity of form, character, or morbid tendency, during one generation to appear again in the next. This has been termed *Atavism*.

"Among the morbid conditions which have been by general consent traced to hereditary taint, the most important is *Scrofula*. It consists in the formation and deposit of a peculiar solid material in the glands of the neck and of the mesentery, in the substance of the lungs, liver, and kidneys, in the membranes of the air passages, intestines, brain, and spinal cord; which solid material may stir up inflammation and lead to important structural changes, and become the source of several wasting and lingering maladies. This morbid deposit appears to acknowledge as its principal cause a certain

weakness and unsoundness of constitution, which after giving rise to one disease in the parent, may show itself in his offspring in a variety of different forms. A man who has attained a certain age after suffering all his life from epilepsy, may see his children afflicted, one with *scrofulous enlargements* and ulcers of the neck, a second with *tabes mesenterica*, a third with *pulmonary consumption*, a fourth with *white swelling of the joints and destruction of the bones of the spine*, and a fifth with *weakness or unsoundness of the mind*."

Accepting this, as we are compelled to do, from experience and observation, what other conclusion is it possible to arrive at but that all the different morbid changes that afflict us, and through which health and life are jeopardized, have their immediate or exciting causes in the blood, and that any type of disease, no matter what its character when once set up, is modified, transmitted, re-transmitted, and changed, according to the peculiar idiosyncrasy of constitution in which it is located, or any other similar circumstance.

Causes.—Germinal disease from hereditary transmission, particularly from *syphilis*, *scorbutus*, or any condition of the system in which blood poisoning obtains, whether as a result of malignant fever in late or early life, from vaccination, or any other cause of a similar character. As regards the exciting or immediate causes, these should be considered as secondary, or as a sequelæ of some prior disease, rather than as idiopathic. Impure air, impure food, impure water, uncleanness, exposure to cold and wet, extreme poverty, or anything that lowers the system, may become predisposing causes, but until these have become complicated through some peculiar chemico-morbid change, *Scrofula* cannot be produced. A case in point. Here is a child, born of healthy parents, who after a long struggle is slowly recovering from *Scarlatina;* it has been treated fashionably, that is to say, the fever poison, instead of being carried out of the system through the natural outlets, has been chemically altered, and now manifests the change in glandular enlargements, swelling of the throat, enteric or mesenteric disease, &c. Time may, as it does in many cases, carry the child through, but the poison germ in very many cases will still remain in the blood, waiting upon maturity to develop it into disease of the liver, stomach, kidneys, intestines, or brain; or failing in these, *typhus*, *intermittent*, *remittent fever*, *hypochondriasis*, *epilepsy*, or *insanity*, according to the peculiar

circumstances which obtain in life. Accepting this as a correct pathological exposition, it is easy to understand in what way the diseased germ may be transmitted, or how *Scrofula* may originate.

Typhus or *Typhoid Fever* in the adult, equally with zymotic diseases in children, may, from similar causes, become its active agents. Nor can there be any difficulty in understanding it when examined in this light. *Scrofula*, it will be thus seen, is not a primary disease, but the result of a combination of adverse causes. Accepting this theory as correct, we can readily understand why it is that some few among adults and children, who work from ten to twelve hours daily in badly-ventilated rooms or factories, become afflicted with *Scrofula*, whilst the majority escape; or we can with equal ease understand why children of the same parents shall be afflicted in different ways, as mentioned by Dr. Watson, Hooper, and others. The difficulties and doubts which surround it, however, must continue so long as we remain ignorant of its true causes.

Diagnosis.—It will be understood by reference to the varieties of fever and the diseases already treated, that the same poison acting upon different constitutions, at different periods of life, set up different forms of disease, hence that which we call "mesenteric disease" in the infant, from the fact of the poison being seated or confined to the mesenteric glands, becomes scrofula when seated in the glands of the neck later in life. In the former, when suppuration takes place, the discharge is either carried out of the system through the bowels, or taken up into the circulation, inducing *hectic fever* or ulceration of the intestines, and finally terminating in death. In the latter it is thrown off externally, and consequently less liable to induce the same serious result.

More or less, the disease is always accompanied by a low state of vitality, hence the circulation is slow, the pulse weak, and the appetite variable. We generally notice a small kernel or swelling on one or both sides of the neck, sometimes hard and knotty, of which we take little account, inasmuch as it remains very often in this state, without enlarging, for a very long time. By and by, however, we observe that the kernel or 'knots' become larger, red, inflamed, tender, soft, and fluctuating. This process in some cases is very slow, in others rapid, according to the condition of the patient. Generally it is slow, however, and means of some sort are resorted to in order to

induce absorption or hasten suppuration. In favourable cases the swellings or kernels disappear, but not often. In severe cases, they enlarge very considerably on one or both sides, sometimes affecting the sub-maxillary glands, and extending even to the back of the neck, continue in a sluggish indurated condition. In time abscesses form, hard, irregular, and unhealthy, discharging occasionally, or constantly, as the case may be, continuing even for years, and finally terminating in complete *Atrophy* (wasting of the body), *Enteric Fever*, *Consumption*, and death.

TREATMENT.—*Hygiene.*—See "Index."

TREATMENT.—*Medicine.*—The treatment of disease, like everything else, is influenced by fashion, hence the practice which obtains in one age is laid aside in the next. Our forefathers, for instance, placed great reliance upon amulets and charms, which we, who live in a more practical age, smile at, and wonder how it was possible to be so deluded, yet there can be no question, but that 'delusions' just as great are even now held as the *ne plus ultra* of science, which to doubt is to commit one's self as much to censure as it would have been to have questioned the wisdom of King Charles the Second when he touched for *King's Evil* in the church of St. Andrew, Plymouth, soon after the Restoration. Apart, however, from this and other superstitions, how little we know of *Scrofula* may be easily understood by reference to the numerous authors who have written upon it during the last half century. Turn to which of these we may, all is confusion, and yet this need not be if we took more pains to make ourselves acquainted with its true pathological character. Accepting the fact that *Scrofula* results from a chemically complicated poisoning of the blood, which being absorbed and carried into the glands, sets up inflammation and disorganization,—in what way can the disease be removed except through its complete renewal, or in other words, except by 'renewing' the system; that is to say, by enabling it to absorb and carry off the morbid or diseased atoms of which the glands, as well as the whole body, are composed, and replacing these atoms with new? It is because this principle is not understood that so many miss their way. Just a case in point. A highly-respectable woman brought her son, a youth about fifteen, for our advice and assistance, three or four days since.

It was a fearful case, inasmuch as the whole body was more or less implicated. We traced the disease to hereditary causes, and were enabled, from long experience, to form a pretty correct diagnosis.

"Can it be cured, sir?" was the question put by the mother. "Yes, without doubt," was our reply; "but it will require much time and perseverance on your part as well as ours." "How long will it take, sir?" she asked. "Possibly some two, three, or four years," was our reply. She was frightened at once, and could not understand, if it was curable, why it should take so long, and yet this was the only truthful reply that we could give. The body is built up by a slow process,—to make the boy what he was had taken all the years of his life,—how, then, can we expect nature to throw out of the system the whole of the morbid material which has been accumulating for so many years without the time necessary for making the body anew? Every practitioner of experience knows the difficulty, disappointment, and chagrin, that has followed his best exertions again and again, to his grief and loss of faith in his own skill and efficacy of treatment. We are speaking of extreme cases of an hereditary character, and not of those which have arisen as the sequelæ of some prior disturbance, such as *Scarlatina*, *Measles*, or one or other of the diseases to which children are peculiarly liable.

The indications of cure in *Scrofula* differ in no way from other deeply-seated organic diseases: the first consideration, therefore, is the hygienic conditions; and the second, the stomach and internal viscera.

We have pointed out in the treatment of *Consumption* the advantages of a sea voyage,—in the treatment of *Scrofula* equal benefits follow. We have known *strumous* or *scrofulous* youths leaving the manufacturing districts, some for sea, others to enlist as soldiers, and others to go to the gold diggings or into the back woods, in fact to leave all their previous habits of life, and the result has been that, after having survived the first year or two, the system has become inured to the change, nature has thrown off the disease, and they have been changed, so to speak, from OLD BOYS to NEW MEN.

This change is patent to almost all men of experience, and none know this better than recruiting sergeants and army surgeons, who accept and pass young recruits from manufacturing towns that they would not look at in agricultural districts.

Look well to hygiene, therefore, and having settled this, take

stock of the system, and see that every part is in a condition to do its work. The common practice, presuming that the 'enlargements' have not advanced beyond the primary stage, is to apply *Tincture of Iodine*, with the view of breaking them up by dispersion and absorption. There can be no objection to this if constitutional means are taken at the same time. To merely paint or cover the parts affected, however, and nothing further, is little better than useless. The medical attendant need not be without resources of this kind, and will find either of the following 'tinctures' equally good—

℞ Tincture of Iodine.

℞ Tincture of Arnica.

℞ Tincture of Digitalis.

℞ Tincture of Myrrh (simple).

Apply, in change, with a camel-hair brush three or four times daily.

As an alterative, prescribe—

℞ Scrofularia (Figwort herb, dry) .... One ounce.
Mercurialis Perennis (Dog Mercury herb, dry) ..... One ounce.
Stillingin Sylvatica (Queen's Delight, in powder) ... One drachm.

Infuse in three pints of boiling water for one hour, in a covered vessel, let it stand until cold, strain, express, sweeten with honey, and take a wineglassful four times a day.

Prescribe at bedtime—

℞ Compound Powder of Stillingin..... Two grains.

And a "Medicated Vapour Bath," as follows, once a week :—

℞ Verbena Officinalis (Vervain herb, dry) .... Two ounces.
Senecia Jacobia (Ragwort herb, dry) ..... Two ounces.

See "Index," "Medicated Vapour Bath," and prepare and give as directed.

Should the case be far advanced, and the indurations appear red and inflamed, instead of applying the 'tinctures' as directed, poultice with Ulmus Fulva and Bayberry Powder (equal parts), mixed in a strong infusion of Wormwood; or foment and apply cloths saturated with the herb 'infusion,' at bed-time every night.

Local "Medicated Steam Baths" of Wormwood are also benecial, and may be used every second or third night. See "Index."

After taking the medicine, as prescribed, for two or three weeks, the herbs should be changed, and the following prepared and taken instead—

℞ Menyanthes Trifoliata (Bog Bean herb, dry)..... One ounce.
Tussilago Farfara (Coltsfoot leaves, dry) ..... One ounce.
Leptandra Virginica (Black Root, in powder) ..... One drachm.

Infuse in two quarts of boiling water, in a covered vessel, down to three pints, let it stand until cold, strain, express, sweeten with lump sugar, and take a small teacupful three times a day.

It is no uncommon thing, where patients are very delicate, to find the glands enlarge as the system improves. This produces an uneasiness of mind, and unless it is removed, the chances are that they will cease to take medicine, and fall back into their old condition.

This is particularly the case with young women. They want the swelling removed, and are satisfied to have the poison thrown in upon the system rather than be disfigured. We speak from experience, having known many, who might have been cured had they persevered, die of *consumption* from no other cause than this.

Should the disease be complicated with *Tuberculosis* (tubercles of the lungs), the same treatment will meet it by simply using the "Pulmonary Lozenges," which should be also used where it is complicated with cough or ulceration of the lungs.

In cases where gastric disease or a bad condition of the stomach obtains, an emetic may be given with advantage weekly.

It is easy to understand why the stomach and lungs should be active, seeing that the restoration of the blood can only be secured through the assimilative and respiratory process resulting from their combined action. Of air, exercise, and cleanliness, as curative agents, too much cannot be said, nor will it be necessary to do more than direct attention to hygiene.

Sea bathing will also be found a valuable auxiliary, and when it can be had should not be overlooked. As regards diet it is little that need be said beyond stating that it should be nutritious and plain. Broth, eggs, apples, milk, good fresh mutton, fowl, roast and stewed apples, pears, figs, &c., &c.

In all cases where the kernels or glands have not advanced beyond the primary stage, they may be generally dispersed or

removed by absorption; but even this cannot be done at all times, particularly where the patient is delicate.

There is no chance of cure where cases have progressed beyond this stage but through suppuration, and this can only be accomplished through the improvement of the general health.

Cutting or opening the tumours, as is the common practice, should on no account be resorted to, inasmuch as the natural process of suppuration, being interfered with, is arrested, and the curative process greatly retarded.

For "Alterative Pills," "Scrofula Ointment," "Alterative and Convalescent Diet Drinks," "Dietetic Table," &c., see "Index" and "Appendix."

PODAGRA *(Gout)*.

Description.—This is a disease of the blood, and is much more common with the wealthy than the poorer classes. It rarely attacks the young, and is either *acute* or *chronic*, according to its intensity or idiosyncrasy of constitution.

It resembles in many respects *articular rheumatism*, and there can be little doubt but that similar as well as different causes of the two forms of disease give rise to both their peculiarities.

Causes.—These may be either pre-disposing, from hereditary transmission; or exciting, from intemperance or excesses in eating, spirits, wine drinking, or indulgence of any kind, want of active employment, anxiety of mind, plethora, accumulation of uric acid in the blood, obstruction of the ordinary evacuations, dyspeptic, hepatic, intestinal, or renal disease. It is in fact rarely known except in connection with disarrangement more or less of the internal viscera.

Diagnosis.—"Acute."—Pain in the joint of the great toe, sometimes in the instep or heel, commencing generally in the morning, accompanied with more or less fever, inflammation, and swelling. In about twenty-four or forty-eight hours from the commencement of the attack, the parts appear œdematous and extremely painful, which gradually increasing, become so excruciating that the least

touch causes intense agony. The paroxysm seldom terminates before the sixth day, nor continues after the tenth.

Diagnosis.—"Chronic."—Inflammation and pain, severe and more or less constant, or alternating between cessation and attack. Joint immoveable, partly œdematous, distended, and slightly tinged with a scarlet blush, oppression, acidity, and irritation of the stomach, bowels irregular, urine scanty, high coloured, and, after standing for a time, thick and muddy. In some cases the pain and swelling retrocede or pass from the external to some internal part, which seriously affecting the nervous system, induce restlessness, depression of spirits, sleeplessness, &c. These symptoms, if continuous, become more serious, particularly if the patient is advanced in years and the constitution has been impaired by previous attacks. Such cases in fact may be considered hopeless so far as curing is concerned, and all that can be done is to alleviate suffering and wait upon nature. After a time the heart and brain generally become implicated, accompanied with *anasarca* and *albuminaria*, which may be regarded as the precursors of death.

Some authors divide the disease into *Regular Gout*, *Atonic Gout*, and *Retrocedent Gout*, to which others add *Misplaced Gout*, but this is altogether unnecessary, inasmuch as they are nothing more than variations of the same disease. There is, however, another form of the disease, commonly named *Chalky Gout*, which consists of concretions of urate of soda or chalk stones, deposited around the joints and ligaments.

Treatment.—*Hygiene.*—See "Index."

Treatment.—*Medicine.*—Fomentations at bed time of Artemesia Vulgaris and poultices of Ulmus Fulva or Slippery Elm, prepared with an infusion of the same herb. As a day medicine, prescribe—

℞ Genista Scoparia (Common Broom, young dry tops) One ounce.
Lactuca Sativa (Garden Lettuce, young dry leaves) One ounce.

Infuse in three pints of boiling water, in a covered vessel, let it stand until cold, strain, and drink a wineglassful, unsweetened, every three hours.

The following should also be prescribed:—

℞ Eupatorin ..... Twenty-one grains.
Podophyllin..... Five grains.
Zingiber (Ginger, in powder) ..... Fifteen grains.

Divide into twenty parts, and take one part three times a day,

As an external application, to be kept on during the day, apply—

℞ Linimentum Saponis (Anodyne Soap Liniment).

As a diet use freely roast or stewed apples, light chicken broths, brown or unbolted bread, tapioca and sago puddings, grapes may be eaten freely, and pears or ripe fruit of any kind. Eat little animal food, and take no fermented liquors. As an ordinary tea, to be taken with the meals, prescribe—

℞ Eupatorium Purpureum (Queen of the Meadow).

It may be cut up, put into a teapot, and prepared and taken in the same way as ordinary tea.

The purpose of this treatment will be readily understood. The blood is surcharged with a specific poison, which must be carried out of the system either by nature or art, or both combined, before the disease can be removed; and whether it be *acute*, *chronic*, *atonic*, *retrocedent*, *regular*, *misplaced*, or *chalky*, the same end must be kept in view. Nor must we overlook the complications, whatever they are, whether they exist as concomitants or follow as sequelæ.

For "Anodyne Liniments," "Renal Pills," "Convalescent Drinks," &c., see "Index" and "Appendix."

SCIATICA *(Ischiatic Neuralgia).*

Description.—This is one of many forms of disease to which the nerves are especially liable, which in no way differs from others of the same class. *Tic Douloureux* is *Neuralgia* of the facial nerves, as *Sciatica* is *Neuralgia* of the great sciatic nerve, a name derived from 'ischias,' a Greek word, signifying the hip. It is the largest nerve in the body,—is given off from the *sacral plexus*,—and passes out of the great sciatic notch to the hip and upper part of the thigh, the branches of which supply the lower extremity.

"Sciatica," Dr. Copeland says, "has always been viewed as a variety of rheumatism until the comparatively recent writings of

Chaussier and others have shown that, although often very closely allied to certain states of that disease, it is essentially a form of neuralgia."

Like every other inflammatory affection, it varies in its intensity and duration according to the condition of the patient and the circumstances or causes from which it originates.

Causes.—It rarely attacks the young, and is consequently confined to advanced periods of life. Both sexes are liable to it,—males more than females,—although some authors consider it more common to females. Its predisposing causes originate, doubtless, in constitutional peculiarities, hence patients of a nervous, *gouty*, or *rheumatic* temperament are more liable to it than the robust. It is most frequent in wet seasons, when the weather is changeable. We have invariably found it more or less connected with a low state of vitality, and more particularly in the manufacturing districts, arising, doubtless, from close confinement, working in badly-ventilated mills, and exposure in going and coming from work, &c., in all kinds of weather. It is more common in low neighbourhoods, where the soil is heavy and the atmosphere humid. Sailors, labourers, soldiers, fishermen, and mill hands, suffer more from it than any other class, from exposure and the causes which necessarily grow out of their several occupations.

Diagnosis.—Acute pain in the hip, sometimes extending to the groin and back of the leg down to the foot,—more painful at night, easier towards morning, and troublesome during the day, particularly in sitting down or rising up. It is confined generally to one limb, rarely affects both, and when it becomes chronic, terminates very often in contraction of the leg, emaciation, and partial paralysis. It is generally more or less complicated with *dyspepsia*, inactive liver, and an accumulation of uric acid in the blood.

Treatment.—*Hygiene.*—See "Index."

Treatment.—*Medicine.*—Is it a recent attack, and the first of the kind? is a question to be at once settled. The next consideration is the general condition of the patient and the length of time since its invasion.

If it is a recent attack, prescribe a "Medicated Foot Bath" of *Artemesia Vulgaris* (mugwort), and the following medicine:—

℞ Galium Verum (Ladies'-bed straw herb, dry) ..... One ounce.
Capsicum (Cayenne, in powder) ..... Ten grains.

Infuse in a pint of boiling water, in a covered vessel, let it stand half an hour, strain, sweeten, and drink hot, immediately after the "Bath."

As a day medicine prescribe—

℞ Antispasmodic Tincture ..... Two drachms.
Tincture of Mandrake ..... One drachm.
Oil of Juniper ..... Half drachm.
Tincture of Gentian ..... Half drachm.

Mix, dose: ten drops three times a day, in a little hot water, sweetened.

In all cases where the tongue is foul and the stomach disarranged, prescribe as an emetic—

℞ Eupatorium Cannabinum (Hemp Agrimony herb, dry) ..... One ounce.
Lobelia (herb and seed) ..... One drachm.
Capsicum (Cayenne, in powder) ..... Ten grains.

Infuse in a pint of boiling water, for twenty minutes, in a covered vessel, express, strain, and drink in wineglassful doses every ten minutes, until the whole is taken.

If the disease is complicated with *dyspepsia* or indigestion, see "Index," "Indigestion," and treat as there directed.

In stubborn or chronic cases, a white-leather pitch plaster applied over the seat of pain, and kept there, will be advantageous.

Irritating liniments are altogether useless and do more harm than good. The following application, however, is exceedingly efficacious, and if applied immediately after the "Medicated Foot Bath," generally affords speedy relief.

Common spring garden cress (green), made hot in a pan, with just sufficient fresh butter to soften the whole; crush into a pulp, put between cloths or in a soft cotton bag, fastened upon the part as hot as it can be borne, and kept there during the night.

The "Medicated Foot Bath" may be used every second or third night, and the infusion of *Galium Verum* and *Capsicum* be taken at the same time.

The great consideration in the treatment throughout is the general health. Restore this, carry the offending or morbid accumulations out of the system, and *Sciatica* will cure itself.

In addition to the remedies prescribed, the "Medicated Vapour Bath" of *Artemesia Vulgaris* (mugwort), or *Eupatorium Cannabinum* (hemp agrimony), will be of very great advantage.

The "Convalescent Powder," with the meals, should also be used instead of tea or coffee, for which see "Index." See "Index" also for "Convalescent Drinks," "Medicated Wines," &c.

LUMBAGO (*Lumbar Rheumatism*).

Description.—What *Sciatica* is to the hip, and *Neuralgia* to the face, *Lumbago* is to the back; that is to say, it is an inflammatory affection of the nerves which supply the psoas or lumbar muscles, attended with extreme pain, and, like *Sciatica*, common in advanced life.

Causes.—Agricultural labourers, miners, and men engaged in out-door employment, whose labour requires them to be constantly in a stooping position, suffer most from it; and if to this we add the same or similar causes as those which give rise to *Sciatica*, we shall be pretty near the mark. It is a neuralgic or rheumatic affection, and may be either *acute* or *chronic*.

"When it is primary," Dr. Copeland says, "it is sometimes sub-acute, but it is more frequently chronic, especially when it is *consecutive* of other forms of the complaint, and in this latter case it is often complicated with some other form of *rheumatism*, as *Neuralgia* or *Sciatic Rheumatism*. *Lumbago* is often confounded with other complaints, especially congestion of the venous sinuses of the lumbar vertebræ, and its consequences, congestions of the kidneys, &c."

Diagnosis.—Acute pains across the lower part of the back or loins, particularly in stooping or rising; indeed it is often so severe that the patient cannot 'stoop' or move without intense suffering, hence he is compelled to place himself in a fixed position, which he scarcely dare change.

Treatment.—*Hygiene*.—See "Index."

Treatment.—*Medicine*.—See *Sciatica*, pages 565—568, and treat

as directed. In chronic cases the "Anodyne Liniment," as prescribed in *Gout*, see pages 563—565, may be used with advantage; and where the muscles of the back are rigid or stiff, friction with the warm hand daily, and innunction, as follows, will afford relief:—

℞ Hypericum Androsæmum (Tutson, Book leaves, or Park leaves, green and bruised)..... Four ounces.
Olive Oil..... One pint.

Simmer over a slow fire one hour, let it stand until about blood warm, express or strain through a coarse cloth, bottle, gently anoint or rub into the part affected, and cover with flannel.

This is a beautiful preparation, and may be used with equal advantage in muscular, fibrous, or rheumatic pains, in whatever part they are located.

As a means of affording speedy relief, the "Medicated Vapour Bath," as prescribed in *Sciatica*, is one of the most efficient, nor is there any form of disease where it can be applied with greater advantage than in this.

CEPHALALGIA *(Headache).*

Description.—This is frequently a very troublesome complaint, and difficult of cure in very many cases. It is symptomatic of functional or organic disarrangement either of the stomach, brain, or nerves which supply the head. It may be *neuralgiac*, or *muscular*, or it may arise from *congestion, or irritation of the stomach, inflammation of the periosteum, osseous spicatæ, or organic disease of the brain substance.*

Causes.—These are often very various, and in some cases unaccountable. Females of nervous temperament suffer frequently from *sick headache* at particular periods, arising from sympathy between the *stomach* and *uterus*, owing in a great measure to the want of exercise in the open air; the delicate of both sexes also frequently suffer, from which they obtain relief by *epistaxis* or bleeding from the nose. From deficiency of physical power, nature is incapable of sustaining the balance of the circulation, there is determination or congestion of some of the blood vessels which supply the brain, hence, when hæmorrhage ensues relief is found. It will be readily

understood that a low state of vitality, close confinement, physical and mental exhaustion, or anything that reduces the strength, may become predisposing causes, and that when once the condition of body is created, a readiness or fitness to be acted upon by exciting causes of the most trifling nature is constantly present. Anything, when the system is thus prepared, may induce or set up *Headache.* Cold, exposure, excitement, a little extra indigestible food, impure air, irritation of any kind, or it may arise from a plethoric condition of the system, induration, tumefaction, softening of the brain, or as the result of accident in early life, bilious disease, over-excitement from running, blows, or injury of any kind.

Diagnosis.—If the pain is muscular, it will be seated in the front or sides of the head and over the eyes; if from the nerves, see "Neuralgia," pages 493—495; if from a low condition of the nervous system, see "Hysteria," pages 485—488; if from inflammation, induration, softening of the brain, or similar causes, see "Diseases of the Brain;" if from *dyspepsia*, *epistaxis*, or disease of the liver, see "Index," and treat as directed. There need be little or no difficulty in diagnosing the particular form of disarrangement if we take a little time to reflect upon the causes and examine carefully the condition of the patient.

Treatment.—*Hygiene.*—See "Index."

Treatment.—*Medicine.*—Our first consideration must be the condition of the patient and character of the pain. Presuming that the cause or causes of the pain are clearly made out, the difficulty will in a great measure be removed.

Prescribe medicines agreeably with the form of disease from which it arises. Strengthen or build the system up, and do not be led away by the silly notion that because relief is found every time the nose bleeds that it is therefore salutary or beneficial; on the contrary, take means to arrest it as speedily as possible, for the 'blood' is really the body itself, and to lose it is to lose the life.

In nineteen cases out of every twenty the seat of the disease is in the stomach and liver. Prescribe—

℞ Compound Lobelia Pills ..... Five grains.

One after each meal daily; or if the patient is delicate, the two and half grain pill will be sufficient.

Prescribe also—

℞ Podophyllin ..... Two grains.
Leptandrin ..... Ten grains.
Zingiber (Ginger) ..... Sixteen grains.

Divide into fourteen parts, and take one part twice a day.

In cases of extreme nervousness, in addition to the above, prescribe—

℞ Betonica Officinalis ..... One ounce.

Infuse in a pint of boiling water, in a covered vessel, let it stand twenty minutes, strain, and bottle. Dose: a wineglassful, cold, three times during the day and a glass at bed-time.

In plethoric and congestive cases, or where the stomach is foul, prescribe the following emetic—

℞ Eupatorium Perfoliatum (Boneset herb, dry) ..... Half ounce.
Lobelia (herb and seed, in powder) ..... Half drachm.
Capsicum (Cayenne, in powder) ..... Ten grains.

Infuse in a pint of boiling water, in a covered vessel, let it stand twenty minutes, strain, sweeten with treacle, and give in wineglassful doses every ten minutes until the whole is taken.

In cases arising from *epistaxis*, as a means of strengthening the system, the "Cold Towel Bath" should be used every morning, see "Index;" and in cases arising from inflammation or ulceration in frontal sinus, which may be known by the pain over the eyes or discharge from the nose, foment the part where the pain is seated with Artemesia Vulgaris (mugwort) every night, or use a "Local Medicated Bath" of the same at bed-time, see "Index."

In cases of simple *nervous headache* prescribe—

℞ "Family Pills" ..... Five grains.

Two at bed-time, and—

℞ "Antispasmodic Powder,"

A teaspoonful in a teacup of boiling water, let the powder settle, strain, sweeten with lump sugar, and drink the liquid hot at the same time.

A wineglassful two or three times during the day may also be taken, if necessary; generally speaking, however, it is sufficient to take the 'teacupful' at bed-time.

A few dried leaves of betony, ground very fine, passed through a fine sieve, and used as ordinary snuff, generally affords immediate relief.

In cases arising from periodical causes in females, see "Index," "Dysmenorrhœa" and "Menorrhagia."

INDURATION, &c. (*Scirrhus, Abscess of the Liver, Pancreas, and Spleen*).

Description.—If the student turns to pages 332 and 335, he will see what is there said of *Hepatitis*, or *Inflammation of the Liver*, and learn its relation to the different organs, through the united action of which the process of digestion and assimilation is carried on. He will be prepared to admit that the *stomach*, *liver*, *pancreas*, and *spleen*, are but parts of the whole, and that anything which affects the one must more or less affect the other. What is called 'acute disease' is nothing more than the commencement of that which, if not removed, must either terminate in death or become chronic, and the different terms by which we distinguish the altered conditions or morbid changes which take place, represent merely the peculiar process through which the organ or part loses its vitality or decays.

It is easy to understand why death takes place, if we merely keep in view the relationship of the different organs to each other and the relationship of each to the whole, and equally easy to understand why disease may be acute or continuous, although we may not so readily see why it assumes a form in one patient altogether different from that of another, even though the circumstances may be as nearly as possible the same.

It is a matter of very great importance to understand the pathological character of a disease, and equally 'important' to understand its diagnosis, not so much for the therapeutic advantages which the knowledge gives us, as for the satisfaction derived from the general aspect of each particular case.

Causes.—As a sequelæ of acute inflammation of the liver, stomach, pancreas, or spleen, of *intermittent fever or ague*, chronic disease of the stomach, *dyspepsia*, or indigestion, residence in warm climates, luxurious living, hard drinking, whether of beer or spirits,

smoking to excess, working under a high temperature, or anything that interferes with the general or portal circulation and affects the normal structure of the parts.

Diagnosis.—Pain on the right side just below the diaphragm, extending across to the left, loss of appetite, and gradual wasting of the system, fulness and distention of the abdomen and stomach, alternate constipation and relaxation, accompanied with griping pains; motions clay coloured, slimy, and offensive; spirits depressed, countenance sallow, and urine high coloured.

In *Scirrhus*, *Induration*, or *Cancer*, the sharp hard edge of the liver may be felt upon the right side, which gradually enlarging, presses upon the portal vein, obstructs the return of venous blood, and causes congestion, *ascites*, and *anasarca*, or *dropsy of the abdomen and extremities*.

In cases of *Hepatic abscess* the walls of the abdomen generally distend, particularly upon the right side. If the distention or swelling extends to the left side, however, and the tumour is moveable and solid to the touch, we may reasonably conclude that the *spleen* is the organ more immediately affected. As regards the *Pancreas*, it is difficult to diagnose or distinguish it by any external sign from that of the liver, with which it is often confounded, as it also is with disease of the *pylorus* and *duodenum*.

Treatment.—*Hygiene*.—See "Index."

Treatment.—*Medicine*.—Before immediately entering upon the treatment, we would remind the student that the *Liver*, *Pancreas*, and *Spleen*, are subject to a variety of morbid changes which, although necessary to know, do not require to be distinctly treated. We name them, therefore, for no other purpose but to prevent confusion.

Cirrhosis is a particular form of *cancer* known as *granulated or hobbed-nail liver*, and called by Dr. Elliottson *gin liver*, as being induced or set up through the habit of gin drinking.

Lardacious Liver is another form of *Hepatic Cancer*, so named from its lard-like or waxy appearance.

Colloid Liver is a form of *Hepatic Cancer*, so named because of the soft glue-like appearance of the morbid deposit.

In addition to these we have *Atrophy*, or wasting of the liver;

Fatty Liver; Cystic, Parasitic, or *Hydatic Liver; Syphilitic Liver; Scrofulous Liver*, &c., &c.

To know these, and as many other forms of *Hepatic* disease as fancy or reality may set up, is quite right and doubtless necessary; to know at the same time, however, that they all depend upon the same immediate cause, and are amenable to the same immediate treatment, is to know that which is a thousand times more important to the patient and equally so to the physician.

No problem in Euclid can be clearer than this. The blood holds in solution all the constituents of the body, whether in health or disease, and the only way to remove the latter is by reproducing the former. That there are medicinal agents which act specifically upon certain organs we know; their action, however, is through the blood; whatever disease or morbid deposit, therefore, we seek to remove, can only be through its agency.

What particular form of the disease is it that we are called upon to treat is now the question? Is it connected with or resulting from *dyspepsia* or *indigestion:* if not, from what other cause? Has the patient resided for any length of time in *India, South America, Africa,*—been exposed to excessive heat, a hard drinker, luxurious liver, great smoker, &c., &c.? To first satisfy ourselves upon these points is of the greatest importance; for unless the causes, whatever they are, can be made out and removed, it will be in vain that we seek to cure the disease. Nor must we overlook the fact that the majority of cases, when far advanced and complicated with other organic disarrangements, are altogether beyond the reach of 'cure.' To alleviate symptoms and prevent a rapid decay of the part, is all that can with prudence be promised or hoped for, particularly in the advanced periods of life.

In all cases (no matter what form they assume), if complicated with gastric disarrangement, the stomach must be attended to. Prescribe—

℞ "Compound Carbon Pills,"..... Five grains.
From one to two after each meal; and as a daily medicine—

℞ Fluid Extract of Taraxacum (Dandelion)	One ounce.
Fluid Extract of Hydrastin	One drachm.
Leptandrin (Resinoid)	Twenty grains.
Capsicum (Cayenne, in powder)	Five grains.
Fluid Extract of Spanish Juice	Half ounce.
Pure Spring or Soft Water	Fourteen ounces.

Triturate or well mix the 'resinoid' and cayenne in a mortar with a small quantity of the water, after which mix and add the whole. Dose: a wine glassful three times a day.

In cases of *enlargement*, prescribe fomentations of Artemesia Absinthium (common wormwood), and flannels saturated with the same, wrung out and applied as hot as they can be borne, to be covered with oiled silk, fastened and kept on during the night.

In cases of *abscess* the same treatment should be prescribed. Where suppuration is going on, however, whether from the *liver* or *pancreas*, which may be known by the mixed, fatty, slimy, bloody condition of the motions, instead of fomentations of 'Artemesia,' prescribe Agrimonia Eupatoria (common agrimony), and instead of the fluid medicine—

℞ Hydrastin ..... Ten grains.
Geranin ..... Twenty grains.
Leptandrin ..... Twenty grains.
Zingiber (Ginger, in powder) ..... Twenty grains.

Mix, divide into twenty parts, and take one part three times a day.

Prescribe also at bed-time every night—

℞ Tormentilla (Tormentil, in powder) ..... Twenty grains.
Zingiber (Ginger, in powder) ..... Ten grains.

Infuse in a half pint of boiling water, sweeten with lump sugar, and drink the liquid only.

In cases of *Atrophy*, accompanied with constipation of the bowels, prescribe—

℞ Compound Powder of Leptandrin ..... Two grains,
Daily, or more or less, as requisite.

As a beverage with the meals, instead of ordinary tea or coffee, prescribe the "Prepared Dandelion Coffee."

Roast or stewed apples instead of butter. Pears and ripe fruits may be used freely.*

* It is important to bear in mind that where the enlargement of the abdomen goes on increasing, which it often does in spite of our best exertions, that death may occur at any time from sudden rupture of the tumour into the cavity of the abdomen, or from the inflammation which it may set up in the peritoneum. In some cases the abscess points externally; and when it does so, it should be encouraged or brought forward by fomentations as recommended, and by the application of poultices of Ulmus Fulva (slippery elm); or it may suppurate and burst internally (which it more commonly does), and discharge its contents by vomit or expectoration, or through the intestinal canal.

CHRONIC RHEUMATISM.

Description.—This form of *Rheumatism* is altogether different from the acute disease described and treated as *Rheumatic Fever*, pages 541, 542, and 543, although it often has its origin in similar causes. It is more common to the advanced periods of life, the foundation of which may be laid in some early attack; indeed it is very often a sequelæ of the acute disease.

Causes.—The proximate or immediate cause is doubtless obstruction or suppression of the cutaneous secretion arising from fatigue, exposure, and sudden atmospheric changes. One of the worst cases we ever remember was that of a fisherman who, through having been caught in a storm, was beating about the Channel for forty-eight hours, exposed to wind, rain, and salt water, and wet to the skin the whole of the time, and who, sailor like, paid no attention to himself; the result was a severe acute attack, which culminated or degenerated into a chronic disease, that reduced him to a complete state of helplessness. Apart, however, from causes such as these, the disease may have its origin more or less in germinal causes, that is to say, from a peculiar hereditary condition of the system. It may be confined more immediately to the fibrous structure of the joints, or to the muscles, and be named *Chronic Articular Rheumatism*, or *Muscular*, as the case may be; or if both are implicated, it may be called simply *Chronic Rheumatism*. In some cases the disease has been called *Mercurial Rheumatism*, but such only as can be traced to mercurial ptyalism are so designated.

Diagnosis.—Pains and stiffness of the joints, accompanied with swelling, thickening of the ligaments, and enlargement. There is rarely any redness or apparent inflammation, as in the acute form, although the pain is sometimes as severe, and often so protracted that the limbs shrink or waste, become contracted and all but useless. In milder cases the disease varies according to temperature, sometimes bearable, at other times very severe, but finally passing into the more constant and settled form, unless removed by proper treatment.

Treatment.—*Hygiene.*—See "Index."

TREATMENT.—*Medicine.*—In this, as in all other disease, the first consideration is the condition of the general system. "Every rheumatic affection has two indications of cure. In the first place, to restore to the cutaneous function, the crisis by the skin, generally as well as locally, and in its absence to replace it by artificial serous evacuations; secondly, to regard duly the various dynamic characters [idiosyncrasy of constitution.—*Ed.*] which happen to accompany the rheumatic affection, which is by no means inflammatory, but sometimes of quite an opposite nature."* That the skin is at fault is universally admitted, hence the advantages of promoting perspiration by whatever means it can be accomplished. In our endeavours to accomplish this, however, we must keep in view the general condition of the system, and give to all our efforts the recuperative or recreating force. We have seen many failures follow otherwise excellent means, merely through the want of this necessary knowledge. One patient finds much benefit from "Turkish Baths," and in the desire to benefit others, recommends it to all. Another finds benefit from "Vapour Baths,"—"Turkish Baths" did him more harm than good. Another has tried both with no advantage, but finds great benefit from galvanism. A fourth had tried baths, galvanism, and everything else, but found no relief until he obtained the "Patent Rheumatic Liniment" and "Rheumatic Pills," which he saw advertised in one of the daily papers; whilst a fifth finds relief only from drinking "Herbal Medicine," prepared from the work of some very celebrated herbalist, or recommended by some sufferer, who having received the formula from some other *rheumatic* martyr, is ever ready to help his unfortunate fellow creatures.

Now it is quite possible that every one of the remedies might be equally useful if applied, as HUFELAND observed, "with due regard to the various dynamic characters, or peculiarity of constitution, "which happen to accompany the rheumatic affection." But this difficulty of constitutional diagnosis makes the whole difference; hence "what is one man's meat is another man's poison," is exemplified as certainly in medicine as in food.

We must be careful not to exhaust the body—there is no other secret; and the failures that so often arise from the indiscriminate use of baths, are due more to this than to any other cause. We use up the vital powers, which are at best not very great, instead of retaining

* "Hufeland's Practice of Medicine," Balliere. London.

and increasing the principal, and using only the interest. Look first, then, to the stomach, kidneys, intestinal canal, and general condition of the constitution, and do not be in a hurry to administer baths, galvanism, or anything of the kind, until you have satisfied yourself as to the recreative force of the system.

Where there is nothing objectionable, however, a "Medicated Bath," as follows, may be prescribed:—

℞ Artemesia Vulgaris (Mugwort herb, dry) ..... Three ounces.

Infuse in a gallon of boiling water, let it remain until sufficiently cool, the patient can then stand in it while the skin is being well bathed all over; this done, rub or wipe dry, put into a warm bed, and

prescribe—

℞ Menyanthes Trifoliata (Bog-bean herb, dry) ..... Half ounce.
Capsicum (Cayenne, in powder) ..... Five grains.

Infuse in a pint of boiling water, in a covered vessel, let it stand twenty minutes, strain, sweeten with treacle, and drink in wineglassful doses every five minutes until the whole is taken, after which wrap up warm and go to sleep.

There will be no necessity to trouble about perspiration; if it is set up, as it will be in most cases, all the better. Our purpose at present is, to well saturate the system and assimilate the remedy: every second night, therefore, for the first week, the same process should be carried through. During the day prescribe—

℞ "Rheumatic Pills" ..... Five grains.

Two *morning*, *noon*, and *night*, or six daily.

As a medicine, prescribe—

℞ Antispasmodic Tincture ..... Half ounce.
Zanthoxylin, Tincture of ..... Half ounce.
Pure spring or soft water ..... Fifteen ounces.

Dose: a small wineglassful three times a day.

After taking the medicine a week, in order to prepare the system, prescribe the following "Medicated Vapour Bath" every second night:—

℞ Artemesia Vulgaris (Mugwort herb, dry) ..... Four ounces.

Infuse, and use as directed (see "Index," "Medicated Vapour Bath").

As a gentle aperient and alterative, prescribe—

℞ Zanthoxylin ..... Ten grains.
Eupatorin ..... Ten grains.
Podophyllin ..... Three grains.
Zingiber (Ginger, in powder) ..... Twenty grains.

Mix, divide into fourteen parts, and take one part night and morning.

We have to bear in mind throughout the treatment that the accumulated, intractable, hard or indurated, aggregated dead atoms which encumber the fibrous and other structures must be removed; and only in proportion as the blood can supply the bland vitalizing material necessary to re-instate the structures is it possible to alleviate the disease.

Of diet little need be said beyond simply stating that it should be nutritious. Beer, spirits, and tobacco, must be avoided. Roast and stewed apples, rhubarb, and ripe fruits, may be used freely. We would also remind the student that the medicines should be changed occasionally. As regards the use of the "Turkish" or "Hot Air Baths," they are not so beneficial as the "Medicated Vapour Bath," nor so generally applicable. Should the patient desire to try them, however, he may do so in many cases with advantage. We should not care to take the responsibility, however, in all cases, nor do we know of any where they could be applied with equal advantage to the "Medicated Vapour Bath." The "Spirit Bath" possesses all the merit claimed for the "Turkish Bath," and may be used at home, which is a very great convenience to the invalid.

For "Rheumatic Pills," medicines, formulas, liniments, "Spirit" and "Medicated Vapour Baths," "Diet Drinks," "Domestic Medicated Wines," "Convalescent Powder," "Drinks," &c., see "Index" and "Appendix."

DELIRIUM TREMENS.

Description.—This is a disease peculiar to drunkards, arising from indulgence in strong drinks. A kind of mania, madness, or furious or idiotic melancholy. The French call it *mania-potu*. There is a disease closely resembling it common to those who indulge in opium and other narcotics.

Causes.—Constant or habitual indulgence in strong drinks, whether spirit or malt liquor. The 'spirit' drinker exhibits a different

character when under its influence than the 'beer' drinker; the latter is generally heavy, gloomy, timid, melancholy, and idiotic; the former is often furious, and if not restrained, dangerous to himself and others.

DIAGNOSIS.—Irritability of temper, trembling of the limbs, sleeplessness, and delirium. HOOPER describes it as follows:—"The approach of an attack of 'delirium tremens' is almost invariably announced by the patient being remarkably irritable, with fretfulness of the mind and mobility of the body. Watchfulness next occurs, and the patient gets little or no sleep. He has frightful dreams, sees remarkable sights, or hears extraordinary sounds. He then begins to fancy that some conspiracy is forming against him, entertains suspicions about certain persons or things, and imagines that some mischief is intended towards him. Then he is perpetually busied about his affairs, and so on.

"Some patients in this affection are very much alarmed, and fancy that a person in the next room is waiting to assassinate them. Sometimes the delirium turns on some matter of business, such as settling accounts or telling of money. The patient generally is in a perpetual bustle,—his hands are constantly full,—in short he becomes a perfect man of business."

Dr. BEACH says:—"It seems to come on gradually, and several days elapse before it attains its greatest degree of violence. There is great wakefulness: the patient walks to and fro, raves, and seems to be in the greatest agitation and distress of mind. He is very apt to imagine that there are evil spirits continually before him or haunting him (commonly named by habitual drinkers as 'blue devils'). I was called to one case of this kind, when the person insisted that there were 'devils' before him, which he could see upon the carpet."

THACHER, an American Professor of some note, says:—"The disease is always attended by febrile symptoms, and it is one of its peculiarities that patients are constantly haunted with the idea that they are infested with snakes and insects. I have frequently seen patients weary in attempting to catch 'snakes' which they imagined were curling about their under clothes."

It is worthy of notice that neither in this form of *Delirium*, nor any other, do patients ever give expression to ideas that have not

previously existed. A city drunkard, who had never seen snakes when *sane*, would not be tormented with them when *mad*, and this principle holds good in every form of insanity. "An incessantly active bustling delirium supervenes when the disease is fully developed; and the illusions which attend this delirium, however vague and unfounded, operate on the patient with all the force of realities, till he becomes furiously mad. * * * No single description will apply to the expression of the countenance in these cases: for it varies with the predominant impression on the mind of the individual. The skin is damp and relaxed, especially on any exertion; the hands are generally tremulous."

The pathology of *Delirium Tremens* is not understood, nor have any appearances been observed on dissection which can be reasonably regarded as having any essential relation to the disease. The system is usually more or less disordered during the complaint, with costiveness and loathing of food. If the constitution is not broken down by long-continued excess, age, and extreme weakness, however, the prognosis is favourable; but when the system is much reduced, the chances are against recovery.

TREATMENT.—*Hygiene.*—See "Index."

TREATMENT.—*Medicine.*—There can be no difficulty in understanding what the indications of treatment are. We know that alcoholic poisoning permeates the whole system, and that the *crasis*, or red blood globules, have been used up,—that the *serum* is superabundant and surcharged with an irritating stimulant, which, having no power to supply the waste material of the body, contributes to the general weakness, whilst it excites or sets up delirium from its direct influence upon the brain. To relieve the system of the latter and increase the former, it will be at once seen, constitutes the secret of cure.

We call to mind a case that came under our notice not long since. A good-looking middle-age man, an out-ride for a large brewery, in Manchester, had been in the habit of drinking to excess occasionally, which he discontinued only when compelled by attacks of this disease. We were called to see him by his wife, a most intelligent young woman, some fifteen years his junior, and from her we obtained the history of his habits. Beer was his favourite drink, and

prior to our being called, he had been allowed to indulge moderately whilst labouring under the attacks.

If the patient is not greatly reduced, prescribe—

℞ Eupatorium Perfoliatum (Boneset herb, dry) ..... Half ounce.
Lobelia (herb and seed, in powder) ..... Half drachm.
Capsicum (Cayenne, powdered)..... ..... Twenty grains.

Infuse in a pint of boiling water, in a covered vessel, let it stand twenty minutes, strain, sweeten with lump sugar, and give in wineglassful doses every ten minutes.

Emesis will most likely follow before one half is taken. Give the whole, however; after which, sponge the surface of the body all over with cold water, wipe dry, put to bed, and prescribe—

℞ Pure Spring Water ..... Fifteen ounces.
Tincture of Capsicum (Cayenne) ..... Half ounce.
Tincture of Scutellaria (Scull-cap), and Tincture of Gentian, of each a quarter ounce.

Dose: a tablespoonful six times a day for the first and second day, gradually reducing it to a tablespoonful four, and three times a day.

As a gentle aperient, prescribe—

℞ Compound Powder of Leptandrin..... One grain,

Daily, or more or less, as necessary.

It is of importance to remember that 'constipation' in this case is rather a result of weakness, through abstinence from solid food, than disease, and that returning convalescence rarely fails to restore the natural function; whatever is given, therefore, must be with a view of assisting nature.

The diet should be light and nutritious, but free from everything stimulating. Prescribe—

℞ "Digestive Food" ..... One drachm.
Boiling Milk ..... A teacupful.

Pour on the latter, stirring it the while, and use as often as the patient can take it.

Should the *Delirium* be severe, prescribe the following as a "Foot Bath"—

℞ Artemesia Vulgaris (Mugwort herb, dry)..... Two ounces.

Infuse in three quarts of boiling water, let it stand, and when sufficiently cool use as hot as it can be borne.

After the first excitement is over the difficulty will have passed; for the treatment acts almost as a charm, and it is rare that more than two or three bottles of medicine are needed.

We invariably refuse the patient alcoholic drinks of any kind whilst under treatment, and enforce the necessity of total abstinence as his only safety afterwards.

The old school treatment consists of calomel, tartar emetic, opium, camphor, morphia, ammonia, and alcoholic stimulants, which do a good deal more harm than good.

For "Digestive Food" and "Compound Powder of Leptandrin," see "Index" and "Appendix."

TREMOR MERCURIALIS *(The Trembles)*; LEAD PALSY *(Dropped Hand)*; AND PARALYSIS AGITANS *(Shaking Palsy)*.

DESCRIPTION.—We have treated *Paralysis* both in its general and partial forms (see pages 472 to 479), and now propose to treat those forms of the disease which may occasionally occur from exceptional causes.

CAUSES.—*Tremor Mercurialis.*—Working in quicksilver, looking-glass manufactories, water-gilding, or at any kind of employment where the fumes of mercury are respired, or where quicksilver or mercury are brought in contact with the skin, or taken internally for medicinal purposes.

CAUSES.—*Lead Palsy.*—This form of *Paralysis* commonly attacks those who work in white lead, such as plumbers, painters and glaziers, compositors, oil painters, or enamel-card makers; drinking water impregnated with lead from lead cisterns; or from the absorption of lead, no matter whether through the skin, lungs, or stomach.

CAUSES.—*Paralysis Agitans.*—This is peculiar to persons advanced in years, and may be so obscure as scarcely to warrant us in assigning it to any particular cause; generally speaking, however, it may be traced to debility from advancing age, excess of the passions in early

life, drinking, prior attacks of rheumatism, severe fright, or concussion of the spinal cord through shock of any kind.

DIAGNOSIS.—*Tremor Mercurialis* generally commences by a very slow process, with a feeling of weakness in the arms and hands, followed with convulsive twitchings and tremors, which extend to the legs, and finally attack the whole body. The power of locomotion is so seriously affected that the patient can no longer command the use of his limbs,—he dances rather than walks,—and is incapable of closing his fingers or grasping anything firmly with the hands. In this condition he is compelled to leave his employment, or if he continues to expose himself to the same influences, decay of the teeth, and a general breaking up of the constitution follow.

DIAGNOSIS.—*Lead Palsy* generally commences with a feeling of weakness in the arms and hands, which soon extends to the fingers and wrists, followed with pains in the shoulders and arms; after a time the hands waste, and the wrist falls or drops entirely useless; the patient is no longer capable of attending his labour—becomes desponding, and suffers more or less from colic, and general disarrangement of the internal viscera.

DIAGNOSIS.—*Paralysis Agitans* generally comes on with weakness and trembling of the limbs, which gradually increasing, extends to the whole body, until every part is affected with continuous or incessant shaking. The extreme difficulty in walking is often so great that the patient is in danger of being thrown forward upon his face; the trembling or shaking is continuous, and the sleep greatly disturbed or arrested altogether. In some cases the urine and fæces pass involuntary,—coma, insensibility, or delirium supervene,—and the patient dies exhausted.

TREATMENT.—*Hygiene.*—See "Index."

TREATMENT.—*Medicine.*—There can be no difficulty in understanding that the indications of cure point immediately to the removal of the causes.

Tremor Mercurialis (mercurial palsy) and *Lead Palsy* (dropped hand) demand full and complete cessation from the employment or

causes out of which they arose, as the prelude to medication. Anything that may be done to the neglect of this will be but waste of effort, and altogether useless. In either of these cases, if there is nothing organically wrong, that is to say, if the heart is free from disease, and there is sufficient strength in the system, prescribe—

℞ Artemesia Vulgaris (Mugwort herb, dry) ... . Three ounces.

Infuse in a gallon of boiling water, let it remain until about blood warm, after which the patient should stand in it whilst the surface of the skin is being bathed all over. He should then be rubbed dry, and the following prescribed :—

℞ Eupatorium Perfoliatum (Boneset, in powder) ..... Half drachm.
Lobelia (herb and seed, in powder) ..... Half drachm.
Capsicum (Cayenne, in powder)..... Ten grains.

Infuse in a pint of boiling water, in a covered vessel, let it stand from twenty to thirty minutes, strain, express, sweeten with treacle, and give in wineglassful doses, hot, in bed, every ten minutes, until the whole is taken.

This will most likely induce emesis or vomiting before one half is taken: take the whole, however, and let it do its work in its own way.

As soon as the stomach is relieved, a little thin gruel may be given, and the—

℞ Compound Powder of Leptandrin ..... Two grains.

How to relieve the system of the poisons which have been absorbed is the one great consideration, and this can only be done through the aid which we can give to nature. Exercise in the open air and good nutritious diet must be enforced. As a day medicine, prescribe—

℞ Hydrastin ..... Twenty grains.
Scutellarin ..... Twenty grains.
Eupatorin ..... Twenty grains.
Podophyllin ..... Three grains.
Capsicum (Cayenne, in powder)..... Ten grains.

Mix, divide into twenty-one parts, and give one part three times a day.

The "Medicated Bath" of Artemesia Vulgaris, and an 'emetic' should be prescribed once a week, and wherever practicable, galvanism may be employed with some advantage. Too much must not be expected from it, however, nor indeed from anything, for nature must not be forced beyond her powers,—time is one of the great requisites, and they who hope for speedy cures will be disappointed in the majority of cases.

The hand, in *Lead Palsy*, should be supported by a splint, and the "Stimulating Liniment" applied daily. The "Cold Towel Bath" may also be used every morning with advantage, or, if convenient, the "Cold Shower Bath."

Paralysis Agitans, being dependent more upon advancing age and debility, it will be at once seen, requires different treatment. It is little that can be done more than to support the strength and attend to the general requirements of the system. In nineteen cases out of every twenty this form of *Paralysis* is an effect of some deeply-seated obscure cause, connected immediately with the spinal cord, but remotely with general debility, or a breaking down of the vital powers. To ascertain the true state of the patient is of the greatest consideration; for unless this is done, a prognosis will most likely be formed which may prove unsatisfactory to all parties.

To know what can be and what cannot be done, is to possess a power of the greatest value both to the physician and patient, and he who prudently uses it is in possession of a secret which cannot fail to ensure a successful practice.

For "Stimulating Liniment," "Medicated Wines," "Convalescent Drinks," &c., see "Index" and "Appendix."

CATALEPSIA (*Catalepsy—Trance*).

Description.—This form of disease is extremely rare and altogether obscure. It is presumed to be connected with the nerves, as it doubtless is, but we confess that we know very little about it, nor do we believe any one else does. It has been described as a spasmodic disease, in which the limbs remain in any position in which they are placed, however painful, and in that respect closely allied to mesmerism. It consists in a total suspension of sensibility and voluntary motion, and generally also of mental power; the pulsation of the heart and the breathing continue, the muscles remain flexible, the body yielding to and retaining any given position.

Causes.—Of these little or nothing is known, and whatever authors may have said is simply speculation. Hufeland says, "The proximate cause is a most singular mental and nervous state, similar to sleep, when also the mutual influence of soul and body is anni-

hilated, therefore greatly approximating to somnambulism." The ganglionic system seems here to take the principal part. The remote causes are the same as those of *Epilepsy* and *Chorea*. Most frequently it is owing to hysterics, exaggerated fancy, and sensibility in the female sex, masturbation, over-excited and unsatisfied sexual desire, worms, metastasis, &c.

Diagnosis.—In most cases the paroxysm comes on without any warning, and closes with sighing. Its duration is from a few hours or minutes to two or three days, and according to well-established authorities, sometimes for a much longer period. Dr. Cullen affirms he never saw an instance of it that was not counterfeited, and asserts the same of other practitioners. On careful examination, a very feeble flutter of the heart, and some movement of the involuntary organs, are generally detected; and if a clear mirror be applied to the mouth and nostrils, it will in most cases be found to have a slight halitus on its surface. But even these signs of animation are not always present. The disease has been mistaken for real death; and in countries where the rite of sepulture takes place speedily, it is much to be feared that the unfortunate sufferer has in a few instances been buried alive.

Hufeland, from whom we have already quoted, says,—"The internal sense is retired and sunk into itself, without clear consciousness, often accompanied with dreams and visions;—organic life is undisturbed. The fit lasts for minutes, hours, even days; after it the patient awakes as from a deep sleep. Sometimes during the fit novel and singular consensus and senses are joined, as hearing and perceiving by the pit of the stomach or sole of the foot.

"This accident has been the foundation of many religious reveries and superstitions, *e.g.*, Mahomet's inspirations, which he pretended to receive in that way,—the belief of bewitching, demoniac possessions, a fate which it has shared with *Epilepsia*, *Chorea*, and *Vesania* (a kind of madness, where the judgment is impaired without coma or prexia).

"Medicine has benefitted, and may still benefit mankind, in explaining these phenomena as natural effects of a nervous disease, not owing to spiritual influences, and teaching how to heal by natural means."

From these quotations we may gather some little idea of past

and present opinions regarding the disease, and although we gain no positive knowledge of its true pathological character, we may at least be satisfied that physical and nervous debility lie at its root, and that to raise the system up, or carry it beyond the cataleptic influences, is the only rational means of cure.

TREATMENT.—*Hygiene.*—See "Index,"

TREATMENT.—*Medicine.*—The general condition of the patient must be well and carefully examined, and the state of each particular organ attended to. To regulate the system in fact constitutes the only secret of cure.

Dr. BEACH says,—"During a paroxysm of Catalepsy, friction should be applied to the surface and extremities, and particularly around the region of the heart. Afterwards the disease must be treated on general principles, and all the secretions and excretions regulated. The stomach, bowels, and skin, should be kept in a healthful tone. Administer antispasmodics and restoratives, with suitable diet and exercise."

This is the conclusion that all experienced medical practitioners have been compelled to arrive at. Formerly the practice of depletion was the fashion even in this disease. HOOPER tells us, however, that "no good has resulted from blood letting, nor means of any kind which reduced the nervous influence." In this respect he is perfectly correct; and now that the fashion has passed, and we are enabled to look the delusion in the face, we can only feel how careful we should be to avoid accepting anything upon the authority of others.

To attend generally to the requirements of the system is, we have said, the primary consideration. The diet should be light and nutritious,—exercise in the open air whenever the weather will admit (without fatigue), and the "Cold Air Bath," with friction, or "Cold Towel Bath," mornings. Cheerful society, and change of scene, will also be found beneficial. As a medicine, prescribe—

℞ Antispasmodic Tincture ..... Two drachms.
Fluid Extract of Leonurus Cardiaca (Motherwort)... One drachm.
Tincture of Hydrastis Canadensis ..... One drachm.

Dose: from ten to twenty drops in a teaspoonful of cold water, four times a day.

At any time during a paroxysm, the "Antispasmodic Tincture," or "Tincture Capsici," may be used, as in an attack of *Epilepsy*, see page 493.

TYMPANITES *(Drum Belly).*

DESCRIPTION.—This is not an idiopathic disease, but generally the result of some other, such as *Typhoid Fever*, chronic *Dyspepsia*, accompanied with hepatic disarrangement and general debility. It arises from an accumulation of gas, or flatus, in the stomach and intestines, which distends and tightens the abdomen, hence its name, from the drum-like sound produced upon percussion.

CAUSES.—General weakness in the stomach and intestines, *dyspepsia* or indigestion, inattention to diet, crude indigestible food, free use of acids, vegetables, and pickles, constant use of purgative medicines, or anything that has a tendency to weaken the system. It is a concomitant in many cases of mesenteric disease, and in others a sequelæ of *Typhoid Fever*, *Diarrhœa*, and *Colic*.

DIAGNOSIS.—Swelling and distension of the stomach and abdomen, rolling or rumbling of wind or flatulency, expulsion of flatus upwards and downwards, attended with *colic* pains, constipation, and in some cases with *dysuria*, or difficulty of passing the urine.

TREATMENT.—*Hygiene.*—See "Index."

TREATMENT.—*Medicine.*—The indications of treatment are to evacuate the air, strengthen or tone up the system, and remove the causes, for which purpose prescribe—

℞ "Compound Carbon Pills,"..... Five grains.
Two after meals daily.

These act as an antiseptic and stimulant, and are exceedingly efficacious in breaking up the accumulated flatus, assisting its expulsion, and giving tone to the system.

As a medicine, prescribe—

℞ Oil of Caraway ..... Half drachm.
Oil of Juniper ..... Half drachm.
Antispasmodic Tincture ..... One drachm.

Dose: six drops on a little fine sugar three or four times daily.

As an aperient and alterative, prescribe—

℞ Podophyllin ..... Four grains.
Capsicum (Cayenne, in powder) ..... Twenty grains.

Mix, triturate, and divide into seven powders. Dose: one part or powder at bed time every night.

Friction with the warm hand over the stomach and bowels for from five to ten minutes, night and morning, will afford relief and assist the cure. Tea and coffee should not be taken with the meals, but the "Convalescent Powder" in their stead. Exercise in the open air daily will be advantageous. Prohibit all crude indigestible substances, such as new bread, veal, pork, onions, pickles, and high-seasoned food.

For "Compound Carbon Pills," "Convalescent Powder," "Diet for Dyspeptics, Invalids," &c., &c., see "Index" and "Appendix."

SYNCOPE *(Fainting)*.

Description.—This form of disease is connected with the nerves as a concomitant of general debility, and is caused immediately by a suspension of the action of the heart and functions of respiration. It is common to females of delicate constitution, and more particularly to such as are predisposed to *hysteria*.

Causes.—From hereditary transmission or maternal delicacy, close confinement, constant sitting, late hours, excitement, nervousness, hæmorrhagia, constipation, organic disease of the heart, frights, falls, loss of blood, or anything that interferes with the circulation, disturbs the mind, or over-excites the passions.

Diagnosis.—*Syncope* or *Fainting* is preceded by partial loss of sight, ringing of the ears, trembling, vertigo, coldness, and pallor of countenance, which rapidly give place to partial or total insensibility.

In some cases the skin is covered with a cold perspiration, the respiration all but arrested, pulse exceedingly weak, eyes and mouth generally closed, but at times wide open, limbs relaxed or flexed, with scarcely a sign of life. Recovery is generally preceded by deep heavy sobs, accompanied at times with vomiting. The attack rarely lasts longer than a few seconds, or at its worst a few minutes. It sometimes terminates in convulsions or *epilepsy*.

TREATMENT.—*Hygiene.*—See "Index."

TREATMENT.—*Medicine.*—See "Hysteria," pages 486–487.*

EMPHYSEMA (*Wind Dropsy*).

DESCRIPTION.—This is a disease confined to the cellular tissue, or rather a concomitant of disease, defined as "soft elastic tumefaction, occasioned by the presence of air, or of any other gaseous fluid, introduced or developed in cellular parts." What *Tympanites* is to the stomach and intestines (see pages 589 and 590), *Emphysema* is to cellular tissue, whether of the lungs or of any other organ or part. An accumulation of air or gas produces a distension or swelling, which, in extreme cases, ruptures the cells and destroys their continuity. HUFELAND says, "It may arise from lesions which permit the external air to enter the cellular tissue; or from an internal decomposition and a development of gas, which is particularly the case in the generic *Emphysema* which accompanies nervous and putrid fevers; even from taking cold after violent over-heating, as sometimes suddenly occurs in one night." It has been divided into *Extrinsic* or *Traumatic Emphysema* (from external causes), and *Intrinsic Emphysema* (from internal causes).

* *Syncope* has been divided into *Syncope Cardiaca* (arising from the heart), *Syncope Occasionalis* (ordinary fainting), and *Syncope Anginosa* (hysterical, spasmodic, suffocating). There is nothing to fear from ordinary fainting where the system is not seriously impaired. When it results from the heart, however, or other deeply-seated cause, the danger to life is increased in proportion to the severity or intensity of the disease from which it arises, and the indications of treatment point to these, rather than to the *Syncope* or *Fainting*, which is merely an effect of some deeply-seated cause, which must be removed before the effect can cease.

Causes.—There can be no difficulty in understanding that gas or impure air may be evolved from animal or vegetable matter in a state of decay. Wounds, abscesses, vomica, tumours, or by whatever other name we may please to designate them, are simply evidences of local death. That gas is freely evolved from dead bodies we well know; we also know how it is engendered in disease. Dr. Copeland, speaking of *Intrinsic Emphysema* (from internal causes), says, "In all diseases affecting the circulating fluid, as typhoid or adynamic fevers, especially those called malignant, where the blood is contaminated by the absorption or introduction of morbid secretions or fluids, exhalation of air into the cellular tissue and hollow viscera often takes place immediately after death; and in some instances it is observed in parts before life is extinct. Morgagni remarked it in an advanced stage of fever following the repulsion of a chronic eruption. Fabricius Hildanus noticed its supervention after smallpox; and Wilmer from the absorption of putrid matters. I lately saw an instance of its appearance under the integuments in the vicinity of a caries dorsal vertebræ in a young lady. It was limited in extent, but elastic and crepitating. It is most frequently met with in warm and unhealthy countries, and in certain epidemics. I have seen it in the malignant fevers of warm climates; it has occasionally been noticed in epidemic yellow fever. * * * Huxham remarks its connection with putrid fever and sore throat, as well as with scurvy, and records a case where it occurred, the patient recovering nevertheless. I saw it in a case of scarlet fever that terminated fatally, and in another that recovered; and I agree with Huxham in considering its appearance about the neck and upper part of the breast as not rare in this and similar diseases. The only question as to the cases was whether or not the air was evolved or secreted from the blood, or was introduced from without at some part of the respiratory passages."

Of *Extrinsic Emphysema* (from external causes) he says, "*Extrinsic* or *Accidental Traumatic Emphysema* occurs sometimes in the course of various diseases and from external injuries—of those maladies in which the respiratory functions become especially affected, more particularly the expiratory actions, and from laceration rather than puncture or incision of parts concerned in these functions. It always proceeds, unless in a remarkably rare form of this species, from the passage of common air into the cellular tissue, through a

breach of continuity in some part of the respiratory apparatus."

From these remarks, and from a careful study of disease generally, we may without much difficulty see the causes. Wherever gas or air is infiltrated into the cells, whether from internal or external causes, if the system has not power sufficient to expel it, it is followed by *Emphysema*. The butcher, in order to produce a peculiar appearance in veal, which fashion or folly in his profession has made absolute, inflates the cellular tissue of the calf. Presuming he did not do this, but left the body intact exposed to the sun, the gas given off from decay would produce a similar effect, and the whole internal viscera thus become *Emphysemaic*. It is from similar causes that certain malignant diseases produce this particular concomitant. The active vital recuperative forces have lost their counteracting or renewing powers, and the gases evolved become locked up in the cellular tissues.

Diagnosis.—If the air is confined to any particular part of the subcutaneous tissue, it may be distinguished by pressure upon the part with the fingers. In *Dropsy* the parts are heavy, and when pressed retain their impression, or pit; in *Emphysema* they are elastic or light, and spring back as soon as the fingers are removed. We shall merely say again, *Tympanites* is to the abdomen what *Emphysema* is to the cellular tissue. If the gas is confined within the cells of the lungs we readily detect it, not by the tightness and swelling alone, but by the shortness of breath and symptoms of suffocation. The patient feels as if he could not lie down, or scarcely live, unless the window is opened. He must have air or die. It is generally attended with cough, palpitation of the heart, blueness of the face and lips, and all the symptoms of acute *Bronchitis* (see Note, page 302). As the disease advances the body wastes, whilst the chest and abdomen enlarge, and *Hypertrophy of the Heart*, *Fatty Degeneration of the Liver*, *Anasarca*, and *Ascites* follow as its sequelæ.

Treatment.—*Hygiene.*—See "Index."

Treatment.—*Medicine.*—There is scarcely a possibility of mistaking the indications to which the treatment points. We have but to consider the structure of the areolar or cellular tissue, the causes which give rise to gaseous evolution within the body, and

remember at the same time that 'intrinsic' or internal *Emphysema* is not an idiopathic disease, but an effect of some deeply-seated cause, which we are called upon to remove. Scarifications and punctures have been recommended when the inflation is considerable; but there is great danger of gangrene following puncture of the skin in this state of the disease, especially if it be resorted to in hospitals, or in confined or ill-ventilated habitations.* The general condition of the system is the primary consideration. The fact of air or gas being evolved and locked up within the cellular tissue is proof of two things; first, that the part or parts are in a state of decay; and, second, that the compensating, vital, or reparative powers are incapable of arresting the destructive or disorganizing processes. What is the condition of the patient? is now the question. If the heart is implicated, and the system greatly reduced, whether by age or disease, we can do no more than mitigate symptoms. To presume upon any specific form of treatment would be altogether useless, inasmuch as it is a concomitant of some one of the many forms of disease already treated. Acute and Chronic Bronchitis, Malignant Fever, Consumption, Abscesses, Wounds, &c., &c. All more or less contain in part the necessary treatment for this, and to raise the system above the level of the disease is the only way to cure it.

AMAUROSIS *(Gutta Serena—Nervous Blindness).*

Description.—This is a loss of sight arising from paralysis of the optic nerve, which may be either partial or complete, according to the intensity or character of the case. It has been defined as "partial or total blindness, from affection of the retina, or of the nerves of that part of the brain related to the organs of sight, whether arising primarily from functional disorder, congestion, inflammation, or any other change of these parts, or occurring from sympathy with other organs." It is met with in all ages, but more particularly in the middle or advanced periods of life.

Causes.—The predisposing causes of *Amaurosis* are doubtless numerous and diversified. That hereditary disposition has much to

* See "Copeland's Dictionary of Practical Medicine."

do with it there can be no doubt; and Dr. COPELAND quotes freely from some of the most eminent members of the profession in proof of this. "Dr BEER traced it in several families; in one of them through three successive generations, and particularly in the females of that family who had not borne children; it having appeared in them at the cessation of the menses. He also states that dark eyes are more liable to it than light eyes, the proportion being upwards of twenty to one."

"Whatever tends to favour sanguineous congestion of, or serous effusion in, the encephalon, particularly forced exertions of mind or body, excess of passion, the pregnant and puerperal states, occupations requiring frequent stooping, errors of diet, and abuse of wine or spirituous liquors, suppressed discharges, particularly those from the nose and ears, interruption or entire cessation of the menses, gout, rheumatic, and strumous diathesis, &c., &c.

The exciting causes are equally numerous. Amongst the most common are, over exertion of the eyes, exposure to bad light, occupation on minute objects, or employment in candle or lamp light, during the hours usually devoted to sleep. The sensibility of the retina may be destroyed even by a single exposure to strong fires, or a sudden flash of lightning may act by extinguishing the sensibility of this very delicate part. Besides these causes, which may and doubtless are positive, there are many others, too obscure to be traced, which come on by a very gradual process, and upon which our best views can be considered little better than so many speculations. "Numerous cases are on record," Dr. COPELAND tells us, "in which partial Amaurosis has occurred after injuries and wounds of the eyebrows, cheeks, and forehead, or from the extraction of decayed teeth."

DIAGNOSIS.—*Amaurosis* may be, as we have already said, "partial or complete." One eye or both may be affected; in general, however, both are equally dark, and the blindness complete. When both are affected the eyes are fixed upon vacancy, the pupils are dilated or wide open, and insensible to light. There is a peculiarity of gait, arising in a great measure from the uncertainty produced by the loss of vision. It may be distinguished from other forms of blindness by the fixed dilated state of the pupils, although in some rare cases they are moveable.

TREATMENT.—*Hygiene.*—See "Index."

TREATMENT.—*Medicine.*—To understand the pathological character of *Amaurosis* it is necessary to be acquainted with the nervous system, of which a brief outline will be found in pages 457 to 462. If this is read, and carefully supplemented with the articles "Apoplexy" and "Paralysis," a clear insight of the disease may be obtained. The student will see that sensation and voluntary motion depend remotely upon the blood, and immediately upon the nerves, and that whether the case is *Hemiplegia*, *Paraplegia*, partial or complete *paralysis of the lingual, gustatory, optic, auditory, olfactory*, or any of the other nerves, if dependent upon lesion of the brain or a loss of continuity, the result is the same, no matter what part is affected.

Preventive treatment can do a great deal to arrest the progress of predisposing causes, but when once complete *Amaurosis* is developed, it is very little that medicine can do.

Dr. BEACH says,—"The indications of treatment are, 1*st*, in every case to rectify any palpable disorder, imflammation, or plethora by cathartics, debility by tonics; 2*nd*, to neutralise determination of blood to the head, by counter irritation; and 3*rd*, to stimulate and restore the excitability of the retina. This disease, like *Cataract*, is extremely difficult to cure. Electricity may be tried, and means made use of to excite a healthy action of the system. Stimulants may be applied to the eyes, and there is nothing better than the diluted tincture of capsicum. The head should be dipped every morning in cold water, and benefit may be derived by bathing the feet, and making an issue behind the ears, keeping up a constant discharge. In a word, it should be treated on general principles. *Emetics, purgatives, sudorifics, tonics, nervines, and alteratives*, are all classes of medicines which should be tried."

Now, what in the name of common sense does all this mean? Dr. BEACH, instead of writing in this hap-hazard sort of way, should have stated under what circumstances we might expect to relieve or cure it, or where it was beyond hope. The fact is, complete *Amaurosis* is not curable when it is dependent upon organic lesion,—comes on by a gradual process late in life, or when it arises from hereditary causes; but when it is partial, or arises from inflammation, from excess of passion, over fatigue, working under a strong light, exhaustion, blows, accidents, or other causes, if the substance of the brain

is not injured, there is every reason to hope. In all hopeless cases treat whatever constitutional disarrangements exist, but do not torture your patient, or presume to raise hopes that can never be realized. All, or every case, should be treated with due regard to the condition of the patient, bearing in mind at the same time that the eyes have no independent existence, and that only in proportion to the reparative powers of nature, and the help we can give, can they by any possibility be restored. As a local application, cold water thrown into the eyes, morning, noon, and night, is about one of the best remedies. If the system cannot be resuscitated, however, neither cold water, *Tincture of Capsicum*, nor any other 'tincture,' will be of any avail.*

For "Medicated Wines," "Restorative" and "Convalescent Medicine," "Collyriums" or "Eye Lotions," &c., &c., see "Index" and "Appendix."

TETANUS (*Spasm—Lock Jaw*).

Description.—This disease may be defined as "Spasm without any period of complete relaxation until the subsidence of the malady;

* The way in which medical practitioners have speculated regarding the treatment of *Amaurosis* is truly surprising. Take the following:—"Many eminent foreign practitioners, and several in this country, recommend the repeated use of active emetics, especially the tartrate of antimony. Beer, Travis, and Lawrence, however, are opposed to the use of the emetic, and British practitioners in general are not partial to it. * * * The internal use of strychnine has been recommended in that form of *Amaurosis* which consists simply of a loss of nervous power, *and its reputed success* in other cases of paralysis, justifies a trial of it in this. Mr. Liston, Dr. Short, and Dr. Heathcote, *have applied strychnine externally with apparent benefit.* * * * In addition to those methods of treating *Amaurosis, which may be styled rational*, various remedies have at different times been brought forward, which *have been used empirically*, without any specific indication, such as *mercury, iron*, and *cinchona, musk, camphor*, and the whole class of anti-spasmodics, *leopard's bane*, and some other narcotics, *phosphorus, pulsatilla, eye-bright, rue*, &c." The inflammatory and other affections to which the eyes are subject have been treated freely in pages 152 to 155, and 352 to 355, besides which, and *Amaurosis*, there are many others, such as *Cataract, Fungus, Hæmatodes, Melanosis, Staphylomia*, &c., but these can only be treated by operation, and require a combination of skill which can only be prudently employed where the responsibility is equally shared.†

† Hooper's Medical Dictionary.

its progress being often most rapid, and terminating life by Asphyxia."

The pathology and treatment of *Tetanus*, Dr. COPELAND tells us, has been a subject of discussion with both medical and surgical writers during many years, and even the most experienced and ablest have confessed their inability to furnish satisfactory information respecting it. It is most frequently the result of injuries or surgical operation, and when it arises from any of these causes it is called *Traumatic*, in contradistinction to that form of the disease which arises from internal, uncertain, obscure, or doubtful causes, and which is called *Idiopathic*.

CAUSES.—*Traumatic.*—Injuries from accidents; incised, punctured, or lacerated wounds; splinters of glass, iron, or wood; nails, or anything that injures and inflames the tendons or nerves, particularly of the feet or lower extremities. The proximate or immediate cause is doubtless in the spinal cord, and may be accepted as sympathetic, or reflex, rather than positive.

Idiopathic Tetanus may arise from bilious disease, gastric irritation, exposure to excessive heat, fevers, hysteria, or anything that excites or sets up an inflamed irritable condition of the spinal cord and nerves.

DIAGNOSIS.—Rigidity in the muscles of the back and neck, attended with severe pain, similar to what is known and felt in ordinary *stiff neck*, difficult deglutition, shooting pains in the neck and head, which rapidly increase until the *spasm* is fully established and the jaws firmly fixed or locked.

TREATMENT.—*Hygiene.*—See "Index."

TREATMENT.—*Medicine.*—There is no disease where such diversity and uncertainty of treatment exists as in this, and none where the general results are more unsatisfactory. Mercurials, strychnine, morphia, belladonna, antimonials, turpentine, croton oil, narcotics, sedatives, æther, tobacco, conium, hyoscyamus, hydrocyanic acid, antispasmodics, and alteratives. "The external means," Dr. COPELAND tells us, "have been almost as numerous as those prescribed internally. Bleeding, division of the nerves, incisions, &c., &c." That there is

little to be relied on in the old practice all parties are fully satisfied. How, then, should *Tetanus* be treated?

In *Traumatic* cases—whether called in during the premonitory symptoms, or prior to the actual *lock*, or afterwards—the first thing is to trace the cause, and if any foreign body remains in the wound, remove it. Presuming that this has been done, the active treatment, whether for *Traumatic* or *Idiopathic Tetanus*, in any of their stages, is the same. Prescribe as a "Medicated Vapour Bath,"—

℞ Pyrethrum Parthenium (Common Fever-few, herb, dry) ..... From three to four ounces.

Infuse in five or six quarts of boiling water, and use as directed (see "Index" "Medicated Vapour Bath"). Raise the steam, and keep it up freely for at least twenty minutes, promote in fact free perspiration, after which rub the skin dry, cover with warm blankets, keep by the fire, and prescribe the following as an Enema:—

℞ Lobelia (dry herb, crude) ..... Two drachms.
Eupatorium Perfoliatum (dry herb, crude) ..... One drachm.
Capsicum (Cayenne, in powder) ..... Twenty grains.

Infuse in a full half pint of boiling water, in a covered vessel, let it stand twenty minutes, strain, express, sweeten with treacle, add one drachm of Antispasmodic Tincture, and one drachm of Tincture of Mandrake, inject tepid, or about blood warm.

It is of the greatest importance that the injection should produce a copious discharge from the bowels, and also free emesis. As a relaxant there is no remedy that can bear comparison with Lobelia, nor is there any acute disease of a spasmodic character but will readily yield to it.

As soon as the medicine has operated, the patient should be put into a warm bed, stone bottles of hot water, wrapped in flannel, applied to the feet and sides, and free diaphoresis promoted, until the system is thoroughly relaxed.

The disease is generally fatal, and terminates from about the fourth to the eighth day, in some cases earlier, or it may extend considerably beyond.

Should there be any dental opening, or loss of one or more teeth, the Antispasmodic Tincture may be given in teaspoonful doses every two hours throughout the day; and if the *spasm* refuses to yield, the "Medicated Vapour Bath" should be again administered in about eight or ten hours. The objects to be obtained are a copious discharge from the bowels, free emesis, and profuse perspiration;

perseverance in this course has been rarely known to fail. One of the great advantages connected with *Tetanus* is that your patient retains his consciousness throughout the whole of the disease.

Tetanus, when *Traumatic*, or arising from wounds, is rarely cured under the old practice. The *Idiopathic* form is less difficult. According to PARRY, EBERLE, COPELAND, and other authors, when the disease comes on rapidly, if the pulse rises to 120 the first day it terminates fatal; but if it does not exceed 110 by the fifth day, a favourable issue may be anticipated.

The favourable signs, EBERLE says, "are a very gradual supervention of the disease, abdomen not very hard, bowels easily moved, moist and moderately-warm skin, sound sleep, an increased flow of saliva, and a natural expression of the countenance." The unfavourable are, "sudden and violent invasion of the disease, great rigidity of the muscles of the back, neck, and abdomen; violent pain and retraction in the pit of the stomach, very hard and retracted abdomen, spasmodic twitches of the muscles of the neck and jaws on firm abdominal pressure."

From this description, and a careful examination of the nature and character of the disease generally, we see exactly what is wanted. The *spasm* must be relaxed and the causes removed; nor must there be any cessation of effort until this is accomplished. The feet should be placed in a strong infusion of the Pyrethrum Parthenium (fever-few) whilst the "Medicated Vapour Bath" is being administered; and if *lacerated*, *contused*, or *punctured* wounds are the cause, they should be attended to, that is to say, poulticed with the Ulmus Fulva (slippery elm), or other herbal preparation.

Should diaphoresis not be effected by the application of the "Medicated Vapour Bath," nor free emesis and discharge from the bowels, envelope or roll the patient in a large sheet saturated with the hot herbal infusion, as prescribed for the "Medicated Vapour Bath," around which roll a dry hot blanket, put to bed, cover with the bedclothes, and apply the "stone bottles of hot water" to the feet and sides. *Perspiration must be promoted. The bowels must be relieved and the stomach must be vomited; nor is there any safety* apart from this. If the injection cannot be retained, prescribe equal parts of—

℞ Antispasmodic Tincture and Tincture of Mandrake.

Presuming there is no dental opening, draw the cheek back with

the finger as wide as possible, retaining it in position whilst an attendant pours in from a teaspoonful to a dessert spoonful of the tincture, which, with a little care, may be made to pass behind the last molar teeth.

The student will readily understand, from the stubborn state of the bowels, the spasmodic condition of the muscles, and the inflamed condition of the spinal cord and motor nerves what there is to be done, and not relax his efforts until it is accomplished.*

CHOLERA MORBUS (*English Cholera*).

Description.—If the student will turn to pages 174 to 178, and read *Cholera Infantum*, causes, treatment, &c., he will see that whilst the disease is not confined to any particular period, it is more common to infancy and advanced life than to any other. What we know as *English Cholera* is no other than diarrhœa complicated with bilious disease and colic. The name simply signifies 'bile' (a flow of bile), as applied to *Cholera Morbus*, but not to the more malignant disease known as *Asiatic Cholera.*

Causes.—Exhaustion from excessive heat, deficient food, putrid meat, free use of cucumber, pickles, ices, over feeding, purgatives, shell-fish, marsh miasma, obstruction of the capillary circulation from sudden atmospheric changes, or anything that reduces the strength and predisposes the system to the changes that continually surround it.

"Cullen has given us two forms of the disease: one *Cholera Spontanea*, which happens in hot seasons, without any manifest cause; and *Cholera Accidentalis*, which occurs after the use of food which digests slowly and irritates.

"In warm climates it is met with in all seasons of the year, and its occurrence is very frequent; but in England and other cold

* We have laboured for a number of years, with many others, in trying to impress the value of "Lobelia Inflata," "Medicated Baths," and other simple botanic remedies, upon the attention of the profession, but to very little purpose. Here and there one may be found to deviate a little from professional routine, but prejudice is generally too strong; hence it is that the people, in self-defence, prefer to accept the advantages of this treatment from the hands of unlicenced practitioners; not that they *love legality less, but life more.*

climates it is apt to be most prevalent in the middle of summer, particularly in the month of August; and the violence of the disease has usually been observed to be greater in proportion to the intensity of the heat. The spontaneous species is produced by causes which influence the liver, so as to cause a superabundant secretion of bile, mostly of an acrimonious quality; such as suppressed perspiration in very hot weather, from cold or damp incautiously applied to the feet, and by taking cold drinks, especially when the body is considerably heated by exercise. This species is most epidemic at the close of the summer or beginning of autumn."

Sydenham says,—"As certainly as the appearance of swallows in the spring, or cuckoos about the dog days. At this time the heat of the sun stimulates the liver to an inordinate secretion of bile, so that the alimentary canal becomes overloaded with it, and the blood somewhat impregnated, while the liver itself is debilitated by undue action."

The accidental species is generally caused by cold and indigestible fruits, as unripe apples and pears, cucumbers, melons, mushrooms, drastic purges, sudden fright, &c.

A case just comes to mind as we now write. A gentleman saw some very fine oysters early in the season and thought he would treat himself with six-pennyworth, which he ate with a relish, just as they were; but not feeling satisfied with the 'six' (for they were a penny each), he purchased and ate six more. "I was determined," he said, "to have a treat." We were called in next day, and found him suffering from a severe attack of *Cholera Morbus*, which, in spite of our best efforts, continued eight-and-forty hours. That blood poisoning had been set up we felt satisfied; for although the stomach, liver, kidneys, and skin, were all called to the work of expulsion, the poison still remained in the system, and kept up the sickness and relax the whole of the time named.

Diagnosis.—Sickness and purging of bile, griping pains, cramps, tension of the bowels, tongue furred; pulse quick, feeble, and sometimes irregular; thirst, anxiety, cold sweats, and extreme debility. In severe cases, hiccough and cramps supervene, the countenance loses its expression and puts on a blue appearance, which, if not removed, terminates fatally within forty-eight hours, in some cases much earlier; but when the disease is protracted to the third or

fourth day, the patient, although greatly prostrated, generally recovers.

TREATMENT.—*Hygiene.*—See "Index."

TREATMENT.—*Medicine.*—A very little reflection must convince us that the indications of treatment point to the removal of the causes. We have seen that the disease may arise from exhaustion, that is to say, excessive heat and fatigue combined have robbed the system of its power to sustain the balance of life, hence the constituents of the body pass into a liquid state, and the strength rapidly declines. Whatever the predisposing causes may be, the exciting or immediate causes are heat and exhaustion. The treatment in such cases in some degree differs from those that arise from accidental or more positive causes, such as blood poisoning from putrid animal food, over-feeding, shell-fish, cucumber, unripe fruit, ices, &c. In the former, the sustaining or restorative process must be the primary consideration; in the latter the expulsion must precede all other, each particular case varying to suit the constitutional idiosyncrasies of the patient or the peculiar condition of the system. No uniform method of treatment can be prudently employed, although it may be accepted as safe and most efficient to prescribe emetics wherever there is sufficient vitality or strength of constitution, or where the system has not discharged the morbid contents of the *primæ viæ*, and exhausted itself. In this, as in the more formidable disease—*Asiatic Cholera*—the same principle must be kept in view. The poison must not be locked up, nor the body taxed beyond its powers of reaction.

Dr. BEACH says,—"Some have recommended and prescribed *emetics* and some *purgatives*, but I have no evidence of the utility of either. On the contrary, I think them very injurious. They are both calculated to aggravate the disease by continuing or increasing the vomiting and purging; *although it is possible that a new action may be excited by the use of one or both, and in this way prove beneficial.*" Dr. BEACH does not say I have *seen* no evidence of the utility of either, but "I have no evidence." Now the fact is, Dr. BEACH was a man of strong prejudices, and at the time he wrote great excitement existed in the popular mind relative to the value of 'emetics.' The practice favoured Thomsonianism, a name and system which he

altogether repudiated, and for no other reason but because he neither understood THOMSON's theory nor the causes of the clamour in which he took so prominent a part. In all cases where there is sufficient vital force remaining, prescribe a "Medicated Bath" as follows:—

℞ Tanacetum Vulgare (Tansy herb, dry)..... Three ounces.

Infuse in a gallon of boiling water, and let it remain until sufficiently cool. The patient should stand in this whilst the skin is being bathed all over, particularly the abdomen and stomach. He should then be rubbed freely with a dry coarse cloth, put into a warm bed, and bottles of hot water applied to the feet and sides, after which prescribe—

℞ Eupatorium Perfoliatum (Boneset herb, dry)..... One ounce.
Lobelia (herb and seed) ..... Half drachm.
Zingiber (Ginger, in powder)..... Half drachm.
Podophyllum Peltatum (American Mandrake, in powder)..... Half drachm.

Infuse in a pint of boiling water, in a covered vessel, let it stand twenty minutes, strain, express, sweeten with treacle, and give a wineglassful every ten minutes, until the whole is taken.

The purpose of this will be readily understood. It meets the indication of the case immediately, by expelling from the stomach whatever morbid matters are present, calling up an action upon the skin, assisting to eliminate the poison from the blood through diaphoresis, and relieving the liver and intestinal canal of the excess of bile which is the immediate cause of the disease.

Dr. BEACH, whose experience as a practical physician few will presume to dispute, prefers, however, to follow a different course. "I think," he says, "I may say with propriety, *I have found an infallible remedy* for Cholera Morbus, even in the last stages of it. When called to a patient labouring under the complaint, my first object is to allay the irritability of the stomach—*not by giving any medicine calculated to retain the morbid secretions, or to lock them up in the system*, but to *neutralize*, or render inert and harmless the deleterious agent or agents which may be the immediate cause of it; and the *neutralizing mixture* fufils this indication admirably."

His formula is made thus—

"℞ Best Turkey Rhubarb (bruised or pulverized)..... Half drachm.
Bicarbonate of Potash ..... Half drachm.
Peppermint (plant) ..... Half drachm.

"Grind together in a mortar, and put the powder into a teacup; add sufficient lump sugar to sweeten, and a half pint of boiling water; when nearly

cold, add two tablespoonfuls of the best brandy. Of this mixture give two or three tablespoonfuls every half hour, or as often as the periods of vomiting and purging take place. In very severe cases I have occasionally added to every dose fifteen to twenty drops of laudanum. This must be repeated until the urgent symptoms are diminished.

"The effect of this medicine is truly surprising. I have often been delighted with it on account of its sudden, powerful, and salutary effects. It is seldom that the patient will vomit up more than one dose of the *mixture*, but it rests upon the stomach, allays the irritation, checks the nausea and vomiting, and passes gently through the alimentary canal, changing their contents or fæces from the most morbid and fœtid to the most healthy state. While mercury—generally prescribed in such cases—only aggravates, this preparation acts like a charm, and, I was about to add, might be compared to the act of extinguishing fire by pouring water upon it.

"Beside the above medicine, in case the disease is so severe as to render it imprudent to wait the short time that is requisite for the operation of it, an opium pill may be given; *but I have seldom or never found this necessary.* Salt in vinegar or brandy will sometimes check the vomiting when other means fail. External applications must be used, and also the following:—

"℞ Capsicum (Cayenne Pepper, in powder) ..... A tablespoonful.
Spirits of Wine ..... One pint.

"Simmer a few minutes, then dip flannels in it and apply them warm to the stomach, abdomen, and extremities, particularly if there are cramps.

"As a change, I have also applied fomentations of bitter herbs over the parts with decided benefit. Hops simmered in vinegar are excellent.

"These applications remove the tension and spasms (cramps) so peculiar to this complaint. Sometimes a greater portion of the disease seems concentrated in the intestines or the umbilical region, occasioning very great distress, and it becomes necessary to administer injections. Should this be the case, or should there be such an assemblage of symptoms as require the application of several remedial agents to subdue them, give the following injection:—

"℞ Slippery Elm (mucilage prepared from the bark) ... One pint.
Sweet Milk ..... Half pint.
Molasses ..... Half pint.
Olive Oil ..... Quarter pint.
Bicarbonate of Potash ..... One teaspoonful.
Laudanum ..... Half ounce.

"Mix, and introduce as much as possible. It has a very soothing effect upon the bowels, and generally in ten or fifteen minutes relieves the pain.

"The feet should be bathed in warm ley-water and have hot bricks applied to them. The patient should take very freely of mint tea, slippery elm, and other mucilaginous drinks. Bread toasted very brown or black, and cold water poured upon it, makes a very grateful and medicinal drink. Indian or oat meal gruel has a very excellent effect upon the bowels in this disease, it acts as a soothing or emollient poultice to the stomach and intestines, and at the same time affords nourishment.

"*I repeat that the above practice is uniformly successful in Cholera Morbus*, and where it has been properly tried, it has never to my knowledge failed in a single instance."

We give the treatment of Dr. BEACH in full, without comment, leaving the student to decide for himself regarding its propriety. He cannot fail to see, however, that every indication for which Dr. BEACH demands so much, is met at once by the active treatment which we prescribe.

We have an objection to opiates except in extraordinary cases, and rarely find it necessary to resort to them, either in *Cholera Morbus* or any other form of enteric disease.

To return to the treatment, however, arising from excessive heat and exhaustion. That the liver has been over-stimulated and the circulatory or arterial system surcharged with bile there can be no room for doubt, and here, as in the disease arising from known or positive causes, the treatment already recommended in most cases is sufficient, provided the system has not exhausted itself in its efforts to carry the bilious accumulation out of the blood. In all such cases, seize the vital power and sustain it by nutrients and active simple medicines. Prescribe the following:—

℞ Antispasmodic Tincture ..... Half drachm.
Spearmint ..... Ten drops.
Oil of Cinnamon ..... Ten drops.
Tincture of Ginger ..... Half drachm.

Mix, and give from four to six drops in a wineglassful of the following "nutrient astringent":—

℞ Polygonum Bistorta (Bistort root, in powder) ..... One ounce.
Zingiber (Ginger, in powder) ..... One drachm.
Cinnamonum (Cinnamon, in powder) ..... Half drachm.
Lump Sugar ..... Quarter pound.

Gently simmer for twenty minutes in a quart of new milk, add the drops as prescribed, and take hot, every hour.

After the second dose of the above, prescribe—

℞ Podophyllin ..... One grain.
Zingiber (Ginger, in powder) ..... Ten grains.
Calamus Aromaticus (Sweet Flag, in powder) ..... Half drachm.

Mix, divide into four powders or parts, and give one part every four hours, until the whole is taken.

Flannels, wrung out of a strong hot infusion of Tanacetum Vulgare (tansy), may be applied with advantage to the stomach and abdomen, and the feet wrapped in hot flannels saturated with the same. Bottles of hot water should at the same time be applied to the feet and sides. The one great consideration must be how to sustain the system.

Besides the medicine already prescribed, the "Digestive Food" may be used as freely as the stomach will admit, or it may be exhibited as *enemata* two or three times daily.

Use the "Convalescent Powder," instead of any other beverage, with the meals; take light nutritious food, such as beef, or chicken tea, tapioca, biscuits, dry toast, &c. Avoid excesses of every kind, and bear in mind that time and care are necessary to restore the strength.

For Dr. Beach's "Neutralizing Mixture" and "Opium Pills," see "Index." See also "Index" and "Appendix" for "Convalescent Powder," "Digestive Food," &c.*

CHOLERA MALIGNA *(Malignant or Asiatic Cholera).*

Description.—The student, from our remarks upon *Cholera Morbus*, or *English Cholera*, will be in some measure prepared for this. He will see, after having carefully studied both forms of the disease, that they originate in similar causes, and that the character of each is determined by their virulence or intensity. Of the history of *Asiatic Cholera* we shall say no more than that it is presumed to have originated in India, where fatal visitations of the disease seem to have been known from time immemorial. Dr. Beach makes the

* In severe cases, where the relax refuses to yield to the remedies prescribed, see "Index" "Anticholera Powder," and use as recommended in *Malignant Cholera.*

following curious remarks, which we quote for their novelty rather than for anything practical.

"The disease is the most remarkable and extraordinary of any other which has ever visited the human family, viewed in any light whatever, either as regards its origin or progress among the different nations of the earth, or with respect to its symptoms, causes, or pathology. It would appear, in reading the 'Revelation of St. John,' that this disease was alluded to in his prophetic vision, when he foretold many of the astounding events which would occur in these latter days of the world. One of the judgments spoken of is a 'vial' to be 'poured out upon the earth,' which is to cut off one-third of mankind; and I can see no event that has yet transpired to which it appears to allude more striking than to the Cholera.

"There is as much design or contrivance in the propagation of the poison which causes this disease as is ever exhibited in the most wonderful piece of mechanism formed by the hand of man in any part of the universal world; moreover, neither alchymist nor chemist has ever been able to imitate or analyse it. That this subtle virus should mix in the transparent air, which is apparently so clear and pure, be so generally inhaled without producing unpleasant sensations or effluvia in the slightest degree, and then be subsequently thrown upon the liver, to develope its peculiar train of morbid and fatal consequences in the stomach and intestines, causing such suddenly powerful and fatal effects, constitutes one of the greatest, most mysterious, marvellous, and inscrutable problems in the creation; and which can be accounted for only as the shadowing forth of another of those special designs of an omniscient overruling Providence for the accomplishment of some great, and to us unfathomable design."

That the disease is fearful in its character and terrible in its consequence is well known, particularly to those who have experienced its results in practice, as we have done. From the years 1831 and 1832, and in every visitation since, we have been more or less engaged in combating it, have worked incessantly, and written freely, with the hope of preparing the public for whatever similar visitations may take place in the future. In a small pamphlet which we published in the year 1853, we stated our views regarding its pathology and treatment very clearly, and from subsequent reflection

and study of the different modes of treatment practised before, at the time, and our experience since, we are satisfied that it was not only the best then known, but that nothing has been since discovered that can in any way add to its merits. We propose, therefore, to quote freely from the pamphlet, for the following reasons. *First*, because it is out of print; and *second*, in order that the facts stated may be preserved.

"Our readers will excuse us, then, for first troubling them to read the statistics of cholera in the Metropolis, from the General Board of Health.

"On referring to the former visitations of cholera, as far as regards the metropolis, it appears that in 1832 the attacks were 14,144, and the deaths 6,729; the population of London then being 1,681,641. In 1848–49 the attacks were about 30,000, and the deaths 14,601; the population at that time being 2,206,076. So that in the epidemic of 1832 one person died in every 250 of the inhabitants; whereas, in 1848–49, one person died in every 151 of the inhabitants. The mortality, therefore, in 1832–3 was about two-fifths less than in 1849—that is, about 5,800 more persons perished of this epidemic in London in 1848-9 than in 1832.

"The epidemic of 1832 commenced in London, February 16, and ended September 7, 1833, including a period of about nineteen calendar months. But it appears that during this period there was a cessation of deaths for eight months, so that there was in fact two epidemics, the first commencing in February and lasting to November, and the second commencing in August and lasting to September, 1833. The epidemic came to its height in the week ending July 27, when the deaths were 445, the greatest weekly mortality recorded during that visitation.

"In the epidemic of 1848 the attack commenced in September, and the last death recorded in the return of the Registrar-General was in December, 1849, so that the whole progress of this epidemic occupied a period of fifteen calendar months.

"During the first six months, namely, from the end of September, 1848, to the end of March, 1849, the disease advanced progressively, but irregularly, numbering in the whole of this period 988 deaths. During the following months of April and May, there was a lull in the disease, the deaths sinking to one in some weeks, and never in any week exceeding five; but there was never, as in 1832, a

complete cessation of the disease, for there was never a single week without at least one death.

"In the month of May the total number of deaths did not exceed 13; but in the first week of June they suddenly rose to 9, increasing in the last week of the month to 124. From that period the epidemic went on rapidly and uninterruptedly, increasing till it came to its height, in the week ending September 8, 1849, when the deaths, together, from cholera and diarrhœa, amounted to 2,298. From this time the disease declined, and ultimately ceased, as has been stated, in December, 1849. There was thus one epidemic with two well marked periods, the first extending from September to March, and the second from June to December.

"In the first of these periods, the highest weekly mortality was 94, namely, in the week ending January 13, 1849; affording during that period a hope of a comparatively slight visitation; but in the second period this hope was grievously disappointed, for the weekly mortality then rose as high as 2,298 in the week ending September 8.

"The following table shows a considerable parallelism between the early progress of cholera in the metropolis in 1848 and in 1853. That progress was, however, almost every week more rapid than in 1848; and, comparing the total number of deaths during the whole of the eleven weeks with the number of deaths in the corresponding weeks of 1848, it will be seen that the recent deaths have exceeded the former by nearly one-third.

Deaths from Cholera during a period of 11 weeks in 1853.				Deaths from Cholera during a corresponding period of 11 weeks in 1848.		
Week ending	Aug.	6	4	Corresponding week in 1848		19
"		13	19	"	"	17
"		20	10	"	"	7
"		27	18	"	"	7
"	Sept.	3	16	"	"	7
"		10	7	"	"	6
"		17	16	"	"	7
"		24	29	"	"	4
"	Oct.	1	48	"	"	13
"		8	66	"	"	30
"		15	45	"	"	45
	Total		278	Total		162

"It will thus be further seen that the progress of the epidemic

was much more rapid during the whole of the months of 1853 than during the corresponding period in 1848.

"It is remarkable, that gradual and slow as the progress of the disease had been in the metropolis on both visitations, there was in both sudden and violent outbreaks in particular districts and localities. In 1848 it had scarcely appeared in the metropolis when in the very beginning of October it attacked Edinburgh with great violence, and spread in the course of a few days to the neighbouring towns of Newhaven, Portobello, Loanhead, and numerous other places in the vicinity. In the beginning of November it attacked Glasgow, and subsequently a large number of manufacturing towns and villages in Lanarkshire, Ayrshire, Dumfriesshire, and other counties in the south and west of Scotland. In 1853 it attacked, with the like suddenness and with increased violence, the northern English towns.

"The returns from the Metropolitan Commissioners of Police gave 18 cases of cholera and 8 deaths.

"In the Milbank Penitentiary, where cholera was so peculiarly fatal in 1848-9, as compared with the mortality from the same cause in other metropolitan prisons, there were, since the 24th August, 9 cases of cholera and 3 deaths, two of which occurred on the 14th instant (Sept.)

"The condition of cholera in Newcastle we give also from the same source:—

"The total number of deaths from cholera and diarrhœa in Newcastle during the present outbreak (1853) has been 1,505. In the same period (namely, the first forty-seven days), during the prevalence of epidemic cholera in 1831-2, the number of deaths was 290."

And now, after having taxed the student's patience with figures and facts as regards the mortality, let us fairly examine the fashionable modes of treatment, and dispassionately ask ourselves how much of these terrible results have arisen from the want of a proper understanding of the true nature and character of the disease, and the means that have been employed to remove it? In order to do justice to the subject, it will be necessary for us to see the rates of mortality in the different public hospitals, their modes of treatment, and results.

The following is from the pen of Mr. George Ross, surgeon to one of the London hospitals:—

Some of them were collected by himself personally,—others were obtained from various sources. The cases he has analysed amount to no less a number than 6,146 in all.

"Out of 1,821 cases collected by himself throughout England, 81 were treated by salines, that is, by salts of potass and soda, with cold water in abundance. This took place at the Greville Street Dispensary, and the deaths under it were at the rate of only 8 per cent. This is the lowest known.

"21 were treated by tartar emetic, at the Droitwich Lunatic Asylum; and the deaths were 19 per cent.

"607 were treated by salts and emetics, with abundance of cold water; and the mortality was 20 per cent.

"331 were treated with calomel alone, and the mortality was 31 per cent.

"210 were treated with calomel and opium, and the deaths were 56 per cent; here we see that directly opium was given, a remarkable increase of the mortality occurred, for, from 31, the mortality when calomel alone was given, it suddenly mounted up to 56 per cent.

"167 were treated with stimulants alone; he does not say of what kind, but you may rest assured that brandy formed the chief portion of them; and the average mortality was even higher than before, for it amounted to 57 per cent.

"356 were treated by stimulants, calomel, and opium, all combined; and here there is another increase of the mortality directly, for it amounts to 60 per cent.

"The last set of cases he collected were 48 in number, and these were treated by injecting into the veins various salts and water, and the mortality out of these was no less than 39, or at the rate of 80 per cent.

"So that you see of these 1821 cases, the difference in the several rates of mortality, according to the mode of treatment adopted under the same circumstances of disease, were respectively 8, 19, 20, 31, 56, 57, 60, and 80 per cent. of the whole. In other words, there was as a proportion of ten times the number of persons dying of those who were treated by the injection of salts and warm water into their veins, above those who were treated by the same salts and cold water poured into their stomachs; and a proportion of between seven and eight times the number dying of those who were treated by

stimulants alone, or stimulants and opium, that is brandy and opium combined, over and above those treated by salines and cold water, as in the former case.

"However, we have already stated, these are merely the cases Mr. Ross collected with the greatest care and labour for himself; beside which he gives three other tables of cases collected by other persons, one by a Mr. De Grave, from the city of London, of 503 cases, treated in various ways. Another, from Paris, of 2,748 cases, treated at the several large hospitals of that city, also variously. A third, from Vienna, 1,074 cases, also treated in the hospitals of that capital, by all sorts of remedies; and after taking the whole, and carefully comparing them, he comes at last to the following conclusion, which, so far as we can see, is really a faithful statement.

"Out of 3,055 cases treated by brandy, ammonia, and other stimulants, the mortality was 58 per cent.

"When opium was added, out of 356 persons so treated, the mortality rose to 60 per cent.

"When injection into the veins was employed, in 90 cases, the mortality was 15 per cent.

"The lowest mortality of all was from a combination of salts of potass and soda, and cold water in abundance, as used at the Greville Street Dispensary, where the mortality out of 107 persons so treated was as low as 14 per cent. only. A mighty difference certainly! And he remarks, that the stimulating system, or that by brandy and opium, to use his own words, had proved most murderous.

"In comparing these statistics, then, with the present, we see, in the first place, how nearly the mortality is balanced, and how closely it appears to agree with the rate of mortality during the visitation in Newcastle and its neighbourhood, and it cannot fail to astonish us to find, as we advance, with the exception of 'venous injections,' that the methods of treatment which proved so fatal during the years 1832-3 and 1848-9 were in every respect the same as that practiced in 1853 with the same fearful results.

"We hope to be excused here for saying that it *evidences a total deficiency and ignorance of the* DIAGNOSIS *of the disease*, and what is *worse, of the very first principles of pathology, as well as of the therapeutic art. What, for instance, is the disease which we call cholera? And what does it manifest but depression and prostration of the vital force, or temperature constituting the principle of healthy life?*

We shall not stop to speculate on what might have been, but simply say that there is but one way to cure it, and that is, by *sustaining, increasing, and restoring the temperature.* And can this be done, we ask, by the means hitherto employed? Most assuredly not. Let us glance at the "diagnosis" in the different stages of the disease, and see if we can understand it.

"*First.*—Flatulency, griping, nausea, acidity, giddiness, and diarrhœa.

"*Second.*—Cramps in the stomach, rice-water stools, vomiting, sinking of the eyes, prostration, coldness, thirst, &c.

"*Third.*—Collapse, stools greatly increased, extreme prostration, cramps in the extremities, fingers, and toes, change of colour, blue appearance, suppressed urine, loss of speech, &c.

"*Fourth.*—Great restlessness, colour changed to a dark blue, motions fœtid, pulse and action of the heart reduced very low, extremities cold, tongue parched and shrunk, breathing difficult, surface of the body covered with a cold clammy exudation, and finally death.

"The above symptoms attend every case, either in the whole or part, and their careful examination show us at once that from some cause or causes the body has lost the power of sustaining itself, and the different stages through which the disease passes, clearly proves that the blood, by which the temperature is conserved, has lost its vitalizing influence; and *madness itself, we venture to assert, could not conceive anything more irrational than giving, for the purpose of sustaining life, that which is opposed entirely to it,* that in fact which, apart from the disease, is sufficient to destroy life. For is not *calomel* a deadly and destructive agent? and, taken in the most minute doses, does it not to a certain extent destroy the balance of life by disarranging, disturbing, and vitiating the blood upon which health alone depends?

"Again, *opium*, a *deadly* and *powerful narcotic poison.* Is it not the nature of this drug to paralyze the system, and cut off even the very *efforts which nature seeks to make through the medium of nervous energy, to throw off the disease?*

"Again, *brandy.* What, let us ask, are its effects? It has been well established by experiment over and over again, that alcohol, when *absorbed into the system, robs the blood of its oxygen,* and tends only to increase the evils by retaining the carbon, which cannot be discharged during the disease in consequence of the gorged condition

of the blood vessels and internal viscera. Is it not a well known fact that, whatever the proximate or remote causes of cholera may be, the blood has lost its oxygen? And is it not a fact also, that whenever the arterial blood is vitiated or deficient, disease in some form or other must follow? Physiologists tell us that it is this very 'oxygen' carried by the circulation through the millions of channels constituting what is called the circulating system, that nourishes the whole frame, and gives to the nerves their extreme sensibility to pleasure and pain, and that unless the oxydizing process can be continuously carried on, conveying the stream of life to every part, it cannot possibly perform its different duties, and act in continuous harmony with itself. Examine the state of the blood of a patient suffering from cholera, and you will find as the disease advances that the arterial blood diminishes, and that the venous or dark carbonated blood having no *life-sustaining power, congests in the liver, kidneys, lungs, and heart.* Hence the change of *colour, coldness, cramps, rice-water stools, vomiting, feebleness of the circulation, decrease of arterial action, loss of voice, suppression of urine, &c.* The power is passing from the blood, the balance is lost, the body can no longer act, the temperature decreases, and thus passing from stage to stage, finally closes in death. One cannot but feel astonished that a fact so simple as this should have escaped notice, and that depletion should be resorted to for the purpose of relief, where the depletion was so rapid from the nature of the disease itself."

Causes.—It is very little that can be said of these, and that little is at best mere speculation. Dr. Copeland says, "it proceeds from exposure to cold; or to a cold, raw, and moist temperature; or to the night air, loaded with terrestrial emanations after the prevalence of warm weather; or exposure to a hot sun; or, in a word, it generally results from a more intense grade of the same causes, particularly the exhalations from the soil, that produces *Bilious* (English) *Cholera.*

Diagnosis.—See pages 613, 614.

Treatment.—*Hygiene.*—See "Index."

Treatment.—*Medicine.*—Speaking of different morbid conditions

of life, we have said, "Chronic disease requires chronic treatment," meaning that disarrangement, long established and deeply seated, can only be changed or removed by a long course of medication. In all such cases the "active medicinal principles" generally meet the indications of cure; but sudden or acute attacks require to be met as suddenly as they come. We cannot wait for the removal of effete or worn-out matter by a slow process, as in chronic disease, but must do our work at once if it is to be done at all. We have but to remember that the majority of *Malignant Cholera* cases terminate within twelve hours from the attack, to know there is no time to spare. Everything depends, therefore, upon the intensity of the case, the condition of the patient, and the progress which it has made when called to treat it.

Do not stop to speculate upon systems nor theories, but attack the disease at once and effectually if you mean to cure it. If called, then, before it is fully developed, that is in the first stage, prescribe—

℞ Eupatorium Perfoliatum (Bone-set, in powder) ..... Half drachm.
Lobelia (herb and seed, in powder) ..... One drachm.
Podophyllum Peltatum (American Mandrake, in powder) ..... Half drachm.
Capsicum (Cayenne, in powder) ..... Ten grains.

Infuse in a pint and half of boiling water, in a covered vessel, let it stand twenty minutes, and whilst it is being prepared, sponge or bathe the surface of the body all over with tepid or warm water and soap, or vinegar and water, and apply bottles of hot water to the feet and sides; after which strain, express the medicine, sweeten with molasses or treacle, and give in wineglassful doses every five minutes until the whole is taken. Vomit the stomach freely in fact, raise the perspiration, and keep it up,—the greater part of the difficulty will then be over.

We are aware that in this treatment there is much simplicity and not a little trouble, but the success that follows more than compensates us. It may be said, however, "we prefer to treat the disease more scientifically." We reply, this cannot be. It may be treated with more secrecy, and if that is what is meant, prescribe—

℞ Fluid Extract of Lobelia ..... Twenty drops.
Antispasmodic Tincture ..... Half ounce.
Tincture of Mandrake, American ..... Twenty drops.
Mix. Dose: one teaspoonful every ten minutes until the whole is taken.

The same means must be applied as regards the skin, bottles of hot water must also be applied, and the same result accomplished, before success can be attained.

There will be little or no difficulty in arresting the progress of the disease when this has been done; for the poison (whatever it is) having been thrown out of the system, the *cramps*, *relax*, and *rapid dissolution*, which are the effects of the 'poison,' give place to vital reaction, or, in other words, the LIFE IS SAVED.

There is seldom much more to be done after this, if the disease has not passed beyond the first stage; as a means of arresting the relax, however, prescribe,—

℞ Anticholera Powder ..... One ounce.

Infuse in three pints of boiling water, sweeten with lump sugar, and give in wineglassful doses as hot and as quickly as the patient can take it.

But where 'collapse' has taken place; that is to say, when the system is exhausted (see third and fourth stages, page 614) in the struggle, it will not be prudent to administer the 'emetic.' In such cases sponge or bathe the surface of the skin in tepid water, apply the bottles of hot water to the feet and sides, and simply give the medicine.

There must be neither half measures nor fears, give it, therefore, if possible, as directed; and if not, let the assistant or nurse raise the patient's head whilst an attendant administers the medicine in succession, even though only in teaspoonful doses. "So long as there is life there is hope," may be with confidence applied in the very worst cases.

But it may be again said, "We do not like this plan of preparing medicines in presence of everybody; can you not prescribe something equally good that we can send the patient?" We reply, "Yes!" But it often happens that time is too precious; and, whilst we are going to and fro, or "sending" medicine, the patient's life may be lost: the following, however, may be prescribed, if not with equal success, at least with surprising advantage:—

℞ Anticholera Tincture..... Two ounces.

Dose: one teaspoonful every fifteen minutes, in a tablespoonful of hot water sweetened with lump sugar.

We have to bear in mind that the disease cannot be removed except the poison is eliminated; that when called in its first or early stages, *emetics* and *diaphoretics* are essentially necessary; but in the collapse, or later stages, nature has generally done its work, hence the patient sinks from exhaustion rather than the disease.

The following was written so long ago as the year 1848, and the remedy and treatment having been tested and proved by the people for whom it was designed, throughout every part of the United Kingdom, in thousands of cases with the greatest success, during every visitation since, we give it with the conviction that if ever *Malignant, Asiatic,* or *Epidemic Cholera,* or by whatever name it may be known in the future, should again visit this or any other people, the TREATMENT will be found equally successful.

"DIRECTIONS FOR THE CURE OF CHOLERA MALIGNA OR CHOLERA MORBUS.

"The Anti-cholera Powder is a safe remedy in cases of dysentery, diarrhœa, colic, and all forms of disease arising either from obstruction of the fluids or from the influence of miasma or poisonous exhalations absorbed from decayed animal or vegetable matter. It opens the pores of the skin, relaxes the contracted tissues, and gives vent to the exhausted and worn-out matter, which, by being forced back upon the system after having fulfilled the task allotted to it by nature, engenders all the results as manifested in a diseased body, from the simple snuffle in the head, tightness on the chest, and discharge of mucous from the nose (the effect of cold), to the terrible war betwixt life and death, as seen in struggles of agonized humanity, in its endeavours to throw off the poison which gives existence to the scourge known as Cholera Morbus and Asiatic Cholera. To all who value life and health, from the highest to the lowest, the Anti-cholera Powder will be found a most valuable remedy, and may be taken upon every occasion where the patient suspects an obstruction in any of the secretions of the body. A single teaspoonful of this powder, in a teacupful of warm pennyroyal tea, will, if taken in time, often produce a reaction, which, by creating a gentle warmth in the stomach and alimentary canal, forces the congested blood to liquidize, the vascular system to rarify, the flame of life to rekindle, and the system to act as if it had never received the check.

"DIRECTIONS FOR USING THE POWDER.

"1*st Stage.*—Should the patient feel a cold shaking or shivering sensation, go to bed immediately; let some mint or pennyroyal tea be made, and a teaspoonful of the powder be given in a teacupful of the tea, as hot as it can be taken, and repeated every quarter of an hour

until a profuse perspiration arises. This will often remove every symptom in a few hours.

"*2nd Stage.*—Should the patient be seized suddenly with severe pains in the bowels, put the feet immediately in warm water, add three tablespoonfuls of mustard; and prepare and give the medicine or powder as directed; bathe the legs, thighs, and abdomen while the feet are in the water, for five minutes; wipe quick with a rough dry towel; put to bed; give the medicine freely; lay hot bran across the bowels, between two cloths large enough to cover the whole surface. This will effect a cure very rapidly; take care, however, not to let the patient go out too early.

"*3rd Stage.*—Should the patient be seized with a sudden relax and sickness of the stomach, give the medicine immediately, and in addition to the "warm water, mustard, and bran," as recommended in the last stage, place a hot brick to the feet, enveloped in a cloth wet with vinegar, and as fast as the medicine is discharged from the stomach, give more, until the vomiting and relax cease, after which prescribe mint or pennyroyal tea freely, keep up, in fact, profuse perspiration, all will then be right; the patient, however, should keep within doors for a few days.

"*4th Stage.*—Should the patient be seized with sudden cramps in the stomach and bowels, or have passed through stages one, two, and three, without any assistance, let the third stage be immediately carried out, with the application of hot bottles of water to the sides, and hot medicated cloths to the chest, taking care to rub the legs and thighs continually. When the cramps leave, and the bowels compose, give freely of the herb tea, taking care to keep up perspiration for a few hours, after which all will be well, with the exception of great prostration and loss of strength, which will be restored by a few days of good nursing and nourishing food.

"It is important that a good fire be kept in the room where the patient is placed.

"The sediment of the powder should be allowed to settle to the bottom of the cup, and the liquid only taken."

For "Anticholera Powder," "Anticholera Tincture," "Convalescent Powder," "Medicated Cloths" "Botanic Wines," "Digestive Food," "Dietetics," &c., see "Index" and "Appendix."

Chapter XVI.

WOUNDS, ULCERS, ABSCESSES, TUMOURS, CANCERS, &c.

REMARKS.

"THERE CANNOT POSSIBLY BE WOUNDS, TUMOURS, ULCERS, ABSCESSES, OR CANCERS, UNLESS BY ACCIDENT OR BODILY DISEASE. OH, SOME ONE MAY SAY, I DO NOT KNOW HOW MINE BEGAN. IT CAME ON BY ACCIDENT, JUST THE SMALLEST SCRATCH IMAGINABLE, OR THE SLIGHTEST BRUISE; I TOOK NO NOTICE OF IT UNTIL IT BEGAN TO INFLAME, THEN I POULTICED IT, BATHED IT, GOT SOME OINTMENT AND PUT TO IT, AND SO I HAVE KEPT ON EVER SINCE; BUT IT GETS WORSE AND WORSE. AT FIRST IT WAS NO BIGGER THAN A PIN-HEAD, AT PRESENT IT IS AS LARGE AS A CROWN PIECE, AND SO PAINFUL. NOW, HOW IS THIS? WHY DID THE PART INFLAME, AND WHY IS IT SO 'PAINFUL,' AND 'WORSE AND WORSE?'

"HOW MANY TIMES HAVE YOU BRUISED OR SCRATCHED YOURSELF IN THE PAST, AND THE PART HEALED, AND NO MORE NOTICE TAKEN OF IT? THE ANSWER IS, BECAUSE OF THE HEALTHY CONDITION OF THE BLOOD. IT IS THE NATURE OF THE BODY TO REPAIR ITS INJURIES EQUALLY WITH ITS DISEASES, WHERE THEY HAVE NOT DESTROYED OR BROKEN UP ITS RECUPERATIVE POWERS, WHILST IT IS OF THE NATURE OF WOUNDS, ULCERS, ABSCESSES, TUMOURS, CANCERS, &C., TO GET WORSE AND WORSE WHEREVER THERE IS CONSTITUTIONAL DISEASE OR VITAL DEFICIENCY. WHAT, THEN, IS THE MOST NECESSARY CONSIDERATION IN CASES OF THE KIND? THE CONDITION OF THE BODY MOST ASSUREDLY."

It is twenty years since we ventured, in a small work entitled the "Family Medical Adviser," to give expression to the views with which we introduce the present chapter. Theoretically, few or none, whether within the profession or without, will presume to dispute or question its truth; practically, few care to follow it. The senses readily recognise a break, division, or rupture of continuity, whether of the surface, muscular or cellular tissue, and the anxiety to procure a reunion or healing of the part, follows simply as an instinct of self preservation; but the philosophy of 'healing' must be worked out through the understanding, like every other mental action; and

this cannot be done apart from reflection and experience. If the student will turn to Chapter XI., page 270, and read carefully "Remarks on Inflammation, Obstruction of the Circulation, &c.;" and also "Theory of Inflammation," pages 276 to 280, he will be better prepared to understand the subject under consideration. "Apart from the blood," we have said, "there is no life," whether considered in relation to reproduction, nutrition, assimilation, growth of a fœtus, a matured human being, or the healing of a wound. In every case the same principle obtains. A continuous deposit of new material is the great conserver and renewer of life, and whenever this is arrested, whether through impaired nutrition, disease, or accident, the result is ever the same. A gradual or rapid decay, followed either by local death (wounds, abscesses, tumours, scirrhus, or cancer), a total cessation of life, or by a gradual restoration to health.

WOUNDS.

The word "wound" is expressive of injury or loss of continuity, and applied by non-professionals, in the generality of instances, to almost every case alike; but wounds, like everything connected with disease, differ in kind and severity, and are divided into INCISED, LACERATED, CONTUSED, PUNCTURED, and POISONED. It must be clear to every one capable of reflection that their cure can only depend upon three things:—1*st*, Their character and severity; 2*nd*, The age and condition of the patient; and 3*rd*, The skill, care, and attention that are applied to them. The natural modes of healing are by ADHESION and GRANULATION. The favourable conditions are, unimpaired vitality, cessation from bleeding, clean surfaces, exclusion of the air, rest, attention, &c. 'Granulation' is the process of healing which follows inflammation, that is to say, the diseased parts are thrown off by decay or suppuration, and repaired by the deposit of new material, which presents a granular appearance wherever the process of cure is set up.

It is not our purpose to deal elaborately with the subject of "wounds," inasmuch as it belongs to surgery rather than medicine, we shall content ourselves, therefore, by laying down such general rules as shall be applicable to cases that come more immediately under medical treatment.

Speaking of wounds, PIRRIE says,—"In this department of

practical surgery, a great and salutary revolution has been effected within the last seventy or eighty years. This change had for many years before the period above mentioned been occasionally advocated by individuals whose efforts, though at the same time isolated and apparently little appreciated, no doubt tended to the introduction of a more enlightened system. Thus PARACELSUS, who flourished from 1493 to 1541, was, after HIPPOCRATES, the first who advocated simplicity in the treatment of wounds, and in his writings he plainly asserted that in the healing of injuries nature is supreme, and that the office of the surgeon is merely to protect the *vis medicatrix naturæ* from hindrance or interruption. In 1542 the application of water-dressing to wounds was recommended in a paper by BLONDUS, published at Venice. But probably the first occasion on which public attention was at all aroused was by the cures, then deemed wonderful, accomplished at the siege of Metz, in the year 1553, by an empiric named Doublet, who employed linen dipped in pure water. In his practice its success was supposed to depend on certain charms and incantations pronounced over it. Shortly afterwards Paré, the father of French surgery, adopted the water-dressing without the mummeries of incantation."

It will be seen from this quotation that it has taken full three centuries and a half to secure a foundation for the simple truth that "nature is the great repairer of injuries," and yet so little is really known of the process, that they who advocate and use "water-dressing" rarely stop to ask why they do so. "It was at the 'siege of Metz' where water was first used for the purpose, by Doublet, an empiric, and afterwards by Paré," both of whom, it will be remembered, acted as army surgeons, whose subjects were generally young, and inured to a profession where all the physical energies of life were developed. The blood in such cases possessed the reparative qualities in a superabundant degree, and "healing by the first intention," was consequently the rule. But it does not follow, because "water-dressing" is beneficial where health obtains, that it is equally applicable where the blood is in a state of disease. "Water-dressing" can no more be applied indiscriminately to all wounds than one kind of food or medicine can be applied to all subjects.

INCISED WOUNDS.

We shall presume that none of the main arteries are severed.

In all such cases see that the part is clean and free from any foreign body, such as glass, china, or other substance. This done, bring the edges of the wound together, hold them in apposition, and throw a few drops of *Tincture of Benzoin* over the part. Narrow strips of adhesive plaster should then be applied, the wound covered with damp cloths, rest enjoined, and the injured part put into a position to repair itself. In severe cases, where any of the main arteries are injured, it will be necessary to apply a ligature; but as this is a delicate and critical operation, we shall content ourselves by recommending immediate surgical assistance; in the *interim*, however, pressure with the thumb directly over the artery, or a tourniquet, or bandage, should be applied directly above the wound, in order to prevent loss of blood.

"Healing," by what is called the "first intention," may be reasonably expected wherever the blood is in a healthy condition, if the edges of the wound are kept in apposition. It is not always that this can be done by simple strapping, however, hence it may become necessary to apply sutures, but in all ordinary incised wounds the "adhesive plaster" answers every purpose. It will be necessary to bear in mind that the strips, whilst being warmed and drawn tight on either side the wound, should be placed a little separate, in order to admit the escape of *serum*, which is thrown off in the process of healing. Cloths, four or six times doubled, laid lightly over the part damp, and renewed as often as they become uncomfortable, with the necessary time and rest, are in general all that is required. In scalp wounds the hair must be shaved or cut close, and the same process carried through. The general health must be attended to, and where "healing" by adhesion or the "first intention" does not take place, it may be effected by the "granular" or suppurative process, see pages 629, 630. In such cases prescribe—

℞ Sanicula Officinalis (Wood Sanicle herb, dry)..... One ounce.

Infuse in a quart of boiling water, saturate, apply wet, and renew the cloths as often as they become dry or uncomfortable.

LACERATED WOUNDS.

These, like "incised wounds," may arise from many agencies, such as machinery, nails, spikes, bites of animals, or other causes. Whatever they are, however, the treatment indicated is similar in all

respects to the last. Wherever applicable, the torn parts should, after being carefully examined and cleaned, brought in apposition, and the same means employed; that is to say, *adhesive straps* or *sutures*, as best suited to the case; and where "healing" by adhesion or the "first intention" is not accomplished, the *suppurative* or *granular process* should be encouraged, in which case prescribe an 'Infusion of Sanicle,' as in the last.

It is of very great importance to remember that the parts during the "suppurative process" should be kept scrupulously clean, for which purpose, bathing with equal parts of warm milk and water daily will afford every satisfaction.

PUNCTURED WOUNDS.

These are sometimes serious, and like all other "wounds" require prompt and careful attention. The prick of a pin in some cases has been known to prove fatal. We remember a young married woman losing her life this way. Her husband gave her a push one day when she had just put her shawl on, when the pin with which it was fastened passed between the ribs, just under the left nipple, and pierced the heart. She was brought into St. Bartholomew's Hospital immediately afterwards, but life had ceased. In all cases of this kind the result will be determined more or less by the extent of the injury and the position or part of the body penetrated. A sharp instrument has been known to pass through the thick or fleshy part of the thigh without doing any very serious harm; but such a result could not happen except by the merest accident. Presuming the puncture is simply muscular, or that the instrument has not penetrated any one of the main arteries, that no part of it has broken and been left in the wound, foment the part freely with *Artemesia Vulgaris* (mugwort), and apply hot bandages of the same. The indications of treatment in these, as in all other wounds, are to modify or mitigate inflammation and procure a union of the parts. "Violent inflammation is pretty certain to follow punctured wounds of synovial and serous cavities, of dense fibrous structures, and of the scalp, in which latter situation it usually assumes the erysipelatous form." In all severe cases the balance in the circulation is lost; hence, in addition to local treatment, the general system must be attended to. As a means of preventing 'inflammation' from extending, the

part should be covered with cloths saturated with the compound Tincture of Myrrh or Tincture of Benzoin. Prescribe—

℞ Tincture of Myrrh ..... One ounce.
Tincture of Capsicum ..... One drachm.

Saturate, cover the wound, and place a piece of oiled silk over it to prevent absorption.

"It was formerly the custom," PIRRIE tells us, "to dilate every punctured wound by tents and plugs. More recently simple incision was substituted, with the hope of transforming the lesion into a much more simple character. This indiscriminate use of the knife is now justly abandoned, *and dilatation practised at this early stage only with a view to permit the ligature of a bleeding vessel or the removal of foreign bodies, and at a later period to effect evacuation of matter.*"

The treatment of wounds must be governed by the same or similar principles as the treatment of all other disease. Every one knows that wounds heal readily in some persons; in others slowly and with much difficulty. The system must therefore be carefully considered throughout.

CONTUSED WOUNDS.

Wounds of this kind consist of bruises and strains, with or without breaking or tearing of the part. In simple strains and bruises, followed by *ecchymosis* or extravasation of blood beneath the skin, the part should be well fomented with a strong infusion of Millefolium (yarrow), and the part covered with cloths saturated with the Compound Tincture of Myrrh, as prescribed in "Punctured Wounds," pages 624, 625. In severe cases, when the parts are broken, means must be employed similar to 'incised' and 'lacerated wounds!' but where they are jagged or much injured, healing by the "first intention" cannot be expected, indeed it is all but impossible, seeing that the capillary vessels are incapable of conveying healthy blood to the parts. To bring the broken edges in apposition, therefore, remove foreign bodies; keep clean, moist, and warm; subdue inflammation, and heal by the "granulating process," are the indications of treatment. Prescribe rest, quiet, free nutrition, and—

℞ Compound Tincture of Benzoin.

Saturate cloths, apply, and cover with oiled silk, as in "punctured" and other wounds.

Besides the kind of wounds already treated there are many others. They are all governed by similar principles, however, and must be treated according to the peculiarities or circumstances of each particular case. There is but one exception, and that is where the wound is from the bite of a dog, horse, or other animal. In all such cases do not cauterizi the part, as is the common practice, but foment freely with "Artemesia Absinthium" (common wormwood), and treat it as recommended for "Tetanus" or "Lock Jaw." See pages 598—600. As an external application, prescribe—

℞ Tincture Arnica..... Two ounces.

Saturate cloths sufficient to cover, and place the "oiled silk" over, as recommended in the last.

In all cases where there is reason to suspect a rabid condition of the animal, it will be proper to resort to this treatment. The poison is then thrown out of the system, instead of being *thrown in*, as it always is where the torn vessels are "cauterized." Dress the wounds with the "healing ointment;" poultice with the Ulmus Fulva (slippery elm), or with any of the preparations advised throughout the work, agreeably with the indications of each particular case.

For "Tinctures," "Ointments," &c., &c., see "Index" and "Appendix."

BURNS AND SCALDS.

Treatment.—Accidents of this kind, like all others, may be slight or severe; all, however, require careful and immediate attention. Where the skin is simply irritated or blistered, but not broken, applications of cold water surpass all others. Cloths saturated, and renewed as often as they get warm, will be found sufficient; and even where the skin is broken, if the surface only is injured, but not extensively, the same application answers every purpose; where the injury is severe, however, the best known remedy is the *Ulmus Fulva*, or slippery elm. Applied as a poultice to any painful or deeply-seated wound, its soothing effects are truly surprising. When the

part injured is upon the neck or breast, even a very small wound will sometimes prove fatal, particularly in children or hysterical females. Not long since the following case came under our notice. A fine healthy little girl, just old enough to be putting its fingers into everything it could reach, pulled a cup of tea, that had been a moment before poured out by its mamma, over its breast, which raised a blister about the size of a crown piece, or rather larger, over the large pectoral muscle.

The parents, who were of the more intelligent class, did not anticipate danger; but, in spite of their best exertions, the child gradually sank. At the end of the fifth day we were called to see it, but too late to be of any use.

The indications of treatment are to subdue inflammation, and, where the injury is deeply-seated, and sloughing of the parts follow, to promote the healing process through the application of such agents as best agree with the constitution and the particular character of the case.

It is only where the burn or scald is superficial that applications of cold water are beneficial. In deeply-seated injuries, poultices of Ulmus Fulva (slippery elm) will be found universally applicable. In cases of this kind the danger to life arises more from shock to the nerves than from local injury. The blood is thrown off the balance, hence the heart becomes disturbed, its action irregular, and the whole system, as a consequence, deranged. To equalize the circulation and sustain the strength is therefore of the greatest importance; and in proportion as we subdue pain, the chances of a favourable reaction are increased.

The bowels should be kept gently open, the "Convalescent Powder" used freely, the wounds fomented daily with warm milk and water, and poulticed or dressed with the "Compound Ointment of Spermaceti," or the "Compound Mallow Ointment." The great consideration is, to see that the parts are free from irritation, clean, bland, and warm, and in all cases where the tendons are implicated, to keep the limb in extension. Many have been crippled through life from the want of attention to this. Instinctively, wherever the tendons either of the arm or leg are implicated, the limb is flexed; and if it is healed in that position, extension afterwards becomes all but impossible.

The same principle holds good where the neck is the part injured.

The head may be contracted downwards upon the chest, or sideways upon the shoulder, in which position, after the healing process is completed, a strong cicatrix is formed, and the head becomes immovably fixed.

We have directed attention to these considerations with the view of impressing them upon the attention of those under whose charge such cases may come; for however careful the medical attendant may be, where inattention and ignorance rule, the chances are that his advice will be neglected, and the case terminate in deformity.

For "Convalescent Powder," "Compound Spermaceti," and "Compound Mallow Ointments," with "Herbal Fomentations," &c., &c., see "Index" and "Appendix."

ULCERS.

DESCRIPTION.—An *Ulcer* is distinguished simply by the manner of its formation. A 'break' in any part of the body must be a wound, and if it is not classed among *incised*, *lacerated*, *punctured*, or *contused wounds*, it is because it is different in its character. An *Ulcer* consists of accumulated matter, arising from a break or loss of continuity, and is divided into CONSTITUTIONAL, SPECIFIC, and SIMPLE.

It is not our purpose to enter into an elaborate description of the causes of ulceration, but simply and briefly to direct attention to their treatment. It may be a "healthy" or simple *Ulcer*, that is to say, the *pus* or discharge may be laudable, and contain all the material from which the process of healing arises: or it may be a WEAK, PURULENT, INFLAMED, INDOLENT, PHAGEDÆNIC, GANGRENOUS, or SLOUGHING *Ulcer*. These names are all significant of certain local and constitutional states, and he who understands them in this light will find much of the difficulty that surrounds the subject removed. PIRRIE, whose masterly work on surgery is a credit to the writer and the country which gave him birth,* describes a healthy *Ulcer* as follows:—"The edges are smooth, neither inverted nor everted, and adhere to the granulations; and when the latter rise to a level with the common integument, a semi-transparent white film of cicatrix fringes round the edges, and gradually spreads over the granulations. The granulations

* "The Principles and Practice of Surgery," by W. Pirrie, of Aberdeen, 1852.

are small, florid, firm, numerous, pointed at the top, vascular, apt to bleed on being touched, sensitive, and attended with a slight feeling of tenderness, instead of uneasiness or pain. When the granulations come to be on a level with the integument, they begin to be covered over by cicatrix, the discharge is thick and purulent, and easily separated from the surface of the sore.

"The treatment consists in preserving the part at rest, maintaining such an attitude as will promote venous return, and prevent unpleasant sensations and consequences from tension, and in defending the part from the action of the air. Of the various means adopted for fulfilling this last-mentioned indication, the most elegant is tepid water dressing, applied by means of a small bit of lint, with a piece of oiled silk over it, to prevent the lint from being dried. The frequency of the dressing will depend on the quantity of the discharge, it being unnecessary to change it more frequently than is requisite to preserve the parts perfectly clean and comfortable. Another application still employed by some is simple ointment; but for my own part, I almost invariably, like many others, give the preference to the 'tepid water dressing,' with a small piece of oiled silk and a few turns of a bandage, to afford gentle support when necessary."

It will be readily seen from the mode of treatment here adopted that the process of healing is purely natural. Gradually the break or disunion is filled up with new material, the skin formed, and the ulcer cured. Why it is so is clear. The blood was in a healthy condition, and the capillary vessels capable of conveying and uniting the renewed atoms to the part diseased.

'Local death' was therefore removed by the vital or recreative powers of life. The cure of every form of ulcer, by whatever name we may call it, is governed by the same principle; and whilst proper attention is necessary externally, the end to keep in view is the renewal of the blood, without which our best efforts must end in disappointment.

Speaking of healing by granulation, PIRRIE says, "The process by which the cavity (wound) is filled up, and continuity of tissue restored, is called 'granulation.' It consists in exudation from the surface of the cavity of blood-plasma, constituting the fluid cyto-blastema (new vital material). Part of this blood-plasma degenerates into pus corpuscles, and part becomes transformed into nucleated cells,

Minute granules, forming the nucleoli (as they are called) are developed, and to the assemblage of these the term 'nucleus' is given. On the 'nucleus' a cell wall becomes developed, which at first closely embracing the nucleus, is afterwards raised up from it, and the nucleus thus separated from the cell wall occupies an eccentric position within it. In these organized products vessels are formed, and the whole when thus developed constitutes a layer of granulations, spreading over the surface of the cavity, and giving it the appearance of being covered with innumerable small bodies of a conical form, and of a florid red colour. From the granulations blood-plasma is exuded, part of which degenerates into purulent matter for the defence of the granulations, and part is transformed into nucleated cells, by which a new layer of granulations is formed. The cells of the first-formed layer undergo further changes, and ultimately are developed into the texture of the part from the vessels of which the exudation of blood-plasma took place, and each subsequent exudation furnishes a cyto-blastema for the formation of purulent matter and nucleated cells. By the successive formation of these cells, by their becoming ultimately developed into permanent tissue, and by the centrepetal contraction of the original textures, the cavity is filled up, and the next part of the process is cicatrization, or the formation of a cicatrix. This usually begins when the granulations arrive on a level with the surrounding skin, when the blood-plasma, hitherto converted partly into pus corpuscles, and partly into nucleated cells, passes into cells which, by the process of development, are converted into fibres, and constitute the cicatrix. The new skin usually takes its rise from the margins of the old skin; but in some few instances portions of the new skin are seen forming on the surface of the granulations, like little islands, quite remote from the margins."

We have quoted thus freely in order to show how truly beautiful the vital or healing process is carried on; and, whether we contemplate or reflect on the reproduction of fœtal life, or the reproduction of a nucleated cell, the same principle obtains throughout, nor is it easy to miss our way when this fact is once fully established in the mind.

HEALTHY ULCER.

Treatment.—Improve or tone up the system, enforce rest, and

apply tepid or warm-water dressings, or such other treatment as may best agree with the condition of the patient.

WEAK ULCER.

DESCRIPTION.—This is called by some authors *Fungus Ulcer*, from the weak flabby appearance of the granulations, and their tendency to enlarge and rise above the surface in red masses, constituting what is known as "proud flesh."

TREATMENT.—Attend to the general condition of the system, enforce rest, foment night and morning with a strong infusion of Artemesia Absinthium (wormwood), sprinkle a small pinch or two of the "Compound Escharotic Powder" over the *ulcer*, apply cloths throughout the day, from four to six layers, saturated with the 'Absinthium Infusion;' change them as often as they become dry; cover with oiled silk, dress at bed-time with the "Compound Ointment of Sanicula," and prescribe—

℞ "Compound Carbon Pills"..... ..... Five grains.
One or two after meals, as necessary.

INDOLENT ULCER.

DESCRIPTION.—This form of *Ulcer* is common to the poorer class in advancing age, and confined principally to the lower extremities. It generally presents a dry hard dark grey dirty appearance, sometimes quite smooth, and streaked in the centre. It is always more or less accompanied with constitutional disease, which it is necessary to remove before the granulating or healing process can be effected.

TREATMENT.—Attend to the general condition of the system, enforce rest, foment with the "Artemesia Infusion," follow out the directions as given in the last, and prescribe—

℞ "Compound Carbon Pills"..... Five grains.
Two after meals daily.

Prescribe as an external application—

℞ Tincture of Sanguinaria ..... One ounce.

Gently pass a small camel-hair brush or feather over the surface of the ulcer saturated with the tincture. It should be allowed to remain on a few minutes after which dress with the "Compound Ointment of Sanicula," at bed-time, or with Ulmus Fulva, as necessary.

INFLAMED ULCER.

Description.—This form of *ulcer* is exactly what its name represents, that is to say, it is extremely painful, red, and swollen. It presents a livid foul appearance, and gives off a profuse exudation of a bloody offensive character.

Treatment.—Attend to the condition of the system, and note particularly that the stomach and liver are always more or less diseased, wherever ulceration is found, particularly in these cases. It is useless to think of healing except this fact is taken into consideration and made the base of curative action. Prescribe—

℞ Podophyllin	Three grains.
Leptandrin	Twenty grains.
Hydrastin	Twenty grains.
Stillingin	Twenty grains.
Capsicum (Cayenne, in powder)	Ten grains.

Mix, divide into twenty-one parts, and give one part three times a day.

Foment with the *Artemesia Absinthium*, and follow out the directions as given in the last.

SLOUGHING, PHAGEDÆNIC, AND GANGRENOUS ULCERS.

Description.—These forms of *ulcer* are similar in character, and may be known by the ragged, offensive, destructive state by which they are distinguished. "Phagedæna," means an eating away of the part; "Sloughing" means rotting away; and "Gangrene," mortification or death.

Treatment.—It is easy to understand what the condition of the

system must be in all such cases, nor is there any great difficulty in diagnosing such cases. We see before us generally,—age, constitutional disease and debility, and of these we must take stock, and calculate the chances.

The conditions of body out of which such ulcers arise are much easier prevented than cured; for when they pass into these forms they are in the majority of cases incurable. The system, when reduced by age, disease, poverty, and a life of toil, is all but worn out, and the blood thus impaired, the heart is deficient of power to force a supply of vitality to the extremities, the parts as a consequence ROT, SLOUGH, or MORTIFY.

Now all the different forms of *Ulcer*, from the "healthy" or "simple" to the "phagedænic," are but so many phases of decay, and the question of "healing" but so many phases of repair. Mortification is a loss of vitality in the part; *gangrene* or *sphacelus*, an extension of the same to a greater part, or whole of the limb; whilst DEATH of the whole body is just what these are to the parts,—the one is local, the other general.

To say another word on the subject would be a waste of time; and as regards "curing," the remedies are so abundant and innumerable, that any one in practice may easily obtain a supply, according to his knowledge or particular fancy.

Mr. SKEY, senior surgeon of St. Bartholomew's Hospital, whose skill few will presume to question, is a great advocate for bark and opium, which without doubt are useful where excessive debility and nervous irritation obtain. Cases of painful ulceration, however, are better met by fomentations of Artemesia Vulgaris (mugwort) and poultices of Ulmus Fulva (slippery elm).

Raise the system "above the level of the disease," is one of his favourite ideas, which is doubtless very good. His want of a general knowledge, however, of the medicinal properties of the vegetable kingdom confines him to these, and it is seldom that he prescribes any other. Wine, bark, opium, brandy, and porter, constitute the routine of his daily medication.

In concluding our remarks upon *Ulcers*, we would briefly add that the Antiseptic Poultice" is exceedingly useful in offensive gangrenous wounds of every kind.

For "Antiseptic Poultice," "Compound Escharotic Powder," "Fomentations," "Compound Ointment of Sanicula," "Convalescent

Powder," "Compound Carbon" and "Opium Pills," "Medicated Wines," "Diet Drinks," &c., &c., see "Appendix" and "Index."

ABSCESSES.

Description.—An Abcess is an accumulation of matter or *pus* beneath the skin, supervening upon inflammation or cellulitis, that is to say, when "inflammation" exists in any part of the body, no matter from what cause, if not removed by resolution, nature, in order to prevent its extension, sets up a process of decay within a given circumscribed space, which gradually forms into pus and passes into a state of "suppuration," a term used to denote the transformation of the exuded matter into pus, a result most commonly found in cellular tissue, constituting an Abscess. "Normal pus," such as that formed in phlegmonous (inflammatory) abscess, *or that given off by healthy granulating sores* (ulcers), is an opaque, creamy, straw-coloured or slightly greenish fluid, having a peculiar mawkish odour, which it loses on cooling. On examination of its minute structure, it is found to consist essentially of two distinct parts: numerous minute organized particles, called "pus-corpuscles," and a clear yellowish liquid named the "liquor puris," in which the corpuscles are suspended. An abscess is defined as "an imposthume, gathering, or boil; a collection of 'pus' formed or deposited in some tissue or organ." It is so named from the separation of the sides of the cavity which is produced. Where the skin is most thin, and fluctuation most palpable, the abcess is said to *point* or to make its 'point.' An abscess is either *acute* or *chronic*, and is named after the locality or part in which it is seated. If in the lumbar region, or lower part of the back, it is called "a lumbar or psoas abscess;" if it is seated in the glands of the neck, it is called a "glandular" strumous or scrofulous abscess, and so on throughout. We have seen that they follow as sequelæ of inflammation, scarlet fever, measles, and a hundred other causes. Thus 'inflammation' of the lungs may terminate in abscess or consumption, and "inflammation of the fibrous structures of the knee or synovitis (white swelling), in suppurative abscess. It will be readily understood that the indications of cure in whatever part pus or matter is seated, consist in toning up the system, or so improving the general health, that the blood may be capable of supplying the reparative material necessary to heal or renew the parts.

Treatment.—Where is the abscess seated? It may be in the lungs; if so, see "Index" Consumption, and treat accordingly. Or it may be a scrofulous abscess; if so, see "Index" Scrofula, and so on throughout. The cure of a whitlow (acute abscess of the finger) or a common boil, and the cure of synovitis (white swelling) have the same indications, the system must be raised up. Dr. Beach, speaking of the use of the vapour baths, says—"I have successfully treated patients labouring under white swelling, nearly in every stage of the complaint, when all other means have been tried in vain, and wherever the treatment has been pursued, it has been attended with the same salutary effects; I therefore consider it one of the most valuable improvements in medicine and surgery." When the patient is labouring under the most excruciating pain, one single process of steaming, or fomenting in the manner described (by the medicated vapour bath) usually operates *like a charm* in allaying pain and inflammation. It is impossible for the practitioner truly to appreciate the immediate and sovereign effect of fomentations, or rather the effect of the steam or heat arising from the combination, except he make trial of it. I have seen the languishing sufferer, nearly worn out with excruciating pain, so suddenly relieved, the transition of change so great, that the patient suspected that a dangerous dose of opium had been administered. It not only has an astonishing effect upon the parts immediately diseased, but a corresponding or sympathetic one upon the whole system; and I have found it equally applicable and beneficial in case of felons, inflammations, and other painful diseases. A patient who had been in great distress with a whitlow or felon, and who had tried a number of applications without deriving much benefit, was recommended to try the process of steaming. He neglected to do so for a little time, apparently from the supposition that it was too simple to afford any relief; but upon my repeating to him the necessity of resorting to it, he steamed his hand thoroughly by throwing the decoction with the herbs into a small vessel, placing his hand over it, and retaining the steam by a blanket. See "Index" "Local Medicated Vapour Bath." He states that it gave immediate relief, deadening or removing the pain, and producing a free discharge of matter, and also lessening the swelling or inflammation. * * * Steam in the evening, and poultice every morning and evening, until the swelling (abscess) breaks."

It is little that we can add to this. The "Medicated Vapour Bath" we have recommended with fomentations of herbs, general as well as local, which the student will know how to appreciate and apply.

The Compound Poultice of Ulmus Fulva (slippery elm) is most useful in assisting to ripen or induce suppuration, and where the abscess degenerates into ulceration, as it often does in scrofulous and old chronic cases, the "antiseptic poultice" and such means as are recommended in the treatment of ulcers generally, should be employed agreeably with the conditions of each particular case. As a means of cure in simple "whitlow," "boil," or any other circumscribed subcutaneous painful inflammation, fomentation of Artemesia Absinthium (common wormwood), or Artemisia Vulgaris (Mugwort), or other herbs, are most beneficial; and even after suppuration has commenced, the same means should be applied so long as the suppurative process continues. In indolent abscesses, that is to say, where they make little or no progress towards suppuration, or where they give no sign or evidence of healing (and this is a common feature where the blood has lost its healthy character or the system is reduced) prescribe—

℞ Simple Tincture of Myrrh ..... Two ounces.

Saturate four or six layers of cotton; cover with oiled silk; apply during the day, as often as the cloths become dry and uncomfortable; foment or bathe with warm milk and water; saturate the cotton layers, and apply again.

As a means of stimulating the capillary vessels and assisting to set up healthy action, there is nothing to equal this. In the cure of "abscess" the great considerations are the condition of the system, and the causes out of which they arise. To remove these, attend to the treatment externally, as recommended, and improve the general health; there is no other rational method of cure. We would simply remark, in conclusion, that "abscesses," like "ulcers," grow out of certain constitutional causes, which require to be understood, and that this knowledge can only be obtained by the study of disease generally. No separate or partial study can give us a clear conception of any single disease or class of diseases, and he that would become successful in practice must first acquaint himself with ultimate or first principles, and work the problem of curing out through these. The old aphorism, "there is no royal road to learning," is equally applicable to the science and practice of healing. The common practice of cutting

or opening abscesses is altogether wrong, inasmuch as it interferes with the suppurative or natural process of cure, and arrests its salutary progress. In no case, except such as burrow beneath deep fascia, or under the callous horny integument of the hand or foot, should the lancet be resorted to, and then only when the imposthume, or abscess, is ripe.

For formulas, &c., see "Index" and "Appendix," as in "Ulcers."

TUMOURS.

DESCRIPTION.—Tumours are distinguished from abscesses by their firmness of texture, causation and growth, and like all abnormal structures, they are very various in their character. "They are distinguished into *Sarcomatus*, so named from their firm fleshy feel, and '*Encysted*,' more commonly known as "wens." ABERNETHY classified the former into—

1*st*.—VASCULAR or ORGANIZED SARCOMA, including all those tumours which appear to be composed of the gelatinous part of the blood, rendered more or less vascular by the growth of vessels through it.

2*nd*.—ADIPOSE SARCOMA, including fatty tumours, formed at first like the preceding, of coagulable lymph, rendered vascular by the growth of vessels into them, and depending for their future structure on the particular power and action of the vessels.

3*rd*.—PANCREATIC SARCOMA.—So called from the resemblance of its structure to that of Pancreas.

4*th*.—MASTOID, or MAMMARY SARCOMA; so called from the resemblance of its structure to that of the mammary gland. This species is placed between such sarcomatous tumours as are attended with no malignity, *and the following, which have their malignity in a very distructive degree.*

5*th*.—TUBERCULATED SARCOMA, composed of a great many small firm roundish tumours, of different sizes and colours, connected together by cellular substances.

6*th*.—MEDULLARY SARCOMA; so named from its presenting the appearance of the medullary matter of the brain.

7*th*.—CARCINOMATUS SARCOMA, or cancerous tumour.

8*th*.—ENCYSTED TUMOURS.—These present a cyst, which is filled

with different matters. The species are *Steatoma*, containing fat-like matter, *Meliceris*, or honey-like matter, and *Atheroma* or pap-like matter.

The student will see by this description how various are the forms of Tumours, and will, with a little attention, be able to distinguish them. Apart from its usefulness, the study is full of information, and cannot fail to create a habit of reflection and discrimination that will be found highly advantageous in practice.

Treatment.—We are not writing a work on Surgery, nor do we intend to do more than briefly notice the modes of treatment generally adopted. Mr. Skey, who without doubt is a skilful surgeon, never resorts to the knife when he can possibly do without it, nevertheless he contends there is nothing half so effectual as excision in certain peculiar cases; whilst Dr. Beach, who is equally skilful, contends that it is bad practice to resort to the knife under what would be considered the worst circumstances. It is little that can be done more than direct attention to general principles; nor should the student depend upon others so much as upon his own good judgment.

"Tumours may be removed," Dr. Beach says, "particularly when they are pendulous, by passing a silk or linen thread around the base, and then fastening it to a short piece of metal or wood, and daily drawing it tight enough to stop the circulation. Tumours of great magnitude may be taken off in this way, and there is an advantage in thus removing them, in consequence of no hæmorrhage attending the operation. Besides, the patient has less dread of it than of excision by the knife. I removed a very large sarcomatous tumour of fourteen years standing in this manner from the shoulder of a lady in this city, which was preserved in a jar of turpentine, and exhibited for a long time as a curiosity. I have found very little difficulty in removing most kinds of tumours without resorting to the knife. Another method which I have successfully practised, consists in applying the "Caustic Potash" over a small portion of the most prominent part of the tumour until a deep eschar is formed, and afterwards applying slippery elm bark and yeast to promote suppuration. After a few days sloughing will commence, and the contents of the tumour will be discharged.

The following is the method of applying the caustic:—take a a stick or roll of the Caustic Potash (Potassa fusa), and enclose in a

piece of paper, all except the end, to prevent injury to the fingers; then, after wetting the most prominent part of the tumour, gently touch or rub it in a circular form, about the size of a florin, or larger or smaller according to the circumference of the tumour, and continue it until the skin turns brown, or dark, which is usually in about five or ten minutes. As the caustic dissolves, it runs down and excoriates the parts; this should be absorbed by cotton or linen. The pain is severe for a short time only, and no more is experienced until the eschar separates. A poultice of the elm bark and yeast must now be kept on, to favour the process of sloughing or the detachment of the organized parts, which, when done, gives vent to the internal portion or substance of the tumour."

That these methods of removing tumours are exceedingly successful, we know by experience, they may therefore be resorted to with perfect confidence. We have removed pendulous tumours of every kind with the ligature, and as regards the application of the *potassa fusa*, we have found it, and the poultice of the powdered *ulmas fulva* and yeast, to answer every purpose as an external application. "Mr. Skey," we have said, "is no advocate for the knife;" he, nevertheless, contends that excision is, in extreme cases,the easiest and most perfect method of procedure, and that much torture and time are saved by this plan. There are several methods of dressing a tumour after the suppurative process has terminated, but the ulmus simply formed into a round thick cake-like poultice, and the surface covered lightly with the "Compound Ointment of Sanicle" is about the best.

Of old chronic tumours, such as glandular in strumous or scrofulous cases, Dr. Beach speaks highly of Iodine, used either as an ointment or tincture. In *Goitre*, or what is known in this country as "Derbyshire neck," he recommends it very highly.

Besides the tumours already named, there are many others of quite a different character. Those connected with the arteries are called "Aneurismal," others connected with the bones are called "Osseous;" but these belong purely to the surgeon, and can be with much more satisfaction handed over to his treatment. Of alterative or internal medicine, and general constitutional treatment, reference should be made to the different forms of disease treated throughout the work.

What are known as "wens" or "encysted tumours" of the scalp, housemaid's "Bursæ" of the knee, or "Bursæ" generally, may

be removed by the application of "Potassa Fusa," as recommended by Dr. Beach. Abscesses, also, when deeply seated, may be opened by the same process. In delicate patients, the shock to the nervous system by the use of the lancet is thus avoided, and a safer means of cure ensured. "Aneurismal Tumours" can be removed only by ligature or pressure; but, except in the simplest cases, as already said, their treatment should be left to the surgeon.

For formulas or internal medicines, "Discutient Ointment," "Tincture of Iodine," "Iodine Ointment," &c., see "Appendix," and "Index."

CANCER (*Scirrhus, Carcinoma*).

Description.—'Cancer' may attack any organ or part of the body, and, like all other forms of disease, be mild or malignant, curable or incurable, according to its character, or the condition of the patient. There is no form of disease which has received a greater share of attention, that has been, or is more dreaded, to which medical professors, in all ages, have devoted more time and skill, upon which opinion has been more divided, or that has presented so wide a field for arrogant quackery. We have seen it in nearly every form, under all kinds of treatment, and are compelled to confess that if there is a disease, or form of disease, about which the most simple know as much as the wisest, it is 'Cancer.' To say that little or nothing is known about it, is to acknowledge what every medical professor of experience is compelled to admit. Turn to what age we may, or the works of any author of repute, ancient or modern, the same fact presents. And why should we fear to state the truth? More than once or twice we have said, speaking of various types of malignant disease, that "Medicine is no less a science because death is certain," whether it follow from the wearing out of the system from age, or as a result of certain abnormal conditions, which from their positive and absolute power over life bid defiance to the best skill. Death strikes us down at all ages, without respect to class, and he who assumes that disease is curable in every form, might with just as much propriety 'assume' that he can arrest the ravages of time, turn aside the arrows of death, and bid men live on in spite of the decrees of fate. That professors of medicine, as well as others, have deceived themselves by such chimeras, and that

thousands have believed them, we very well know. In a work now before us, written by the celebrated JOHN BAPTISTA VAN HELMONT, 1662, the author, after describing CANCER (Scirrhus) as incurable, says, "a certain man in my dayes, living in the region of Gulick, in Germany, cured every Cancer whatsoever, by a *powder*, causing no pain, being sprinkled thereon; and then next, he healeth it up with an *Incarnating Emplaister;* whose art was buried with himself." From this absurd story, which VAN HELMONT and all his readers doubtless believed, we see how credulity masters us. This wonderful "Cancer curer," however, was not peculiar to that age, nor to the ages that preceded him; what he has been he is, and ever will be, although he may not always appear in the same garb.

There are few now living, for instance, in Lancashire and Yorkshire, but have heard of CANCER BILLY. A dirty kind of ignorant half-witted sort of biped, who, like VAN HELMONT'S "certain man," cures "every kind of cancer." We have never seen him, but speak from the report of many of our patients, who have been under his treatment. Poor women come to him from all parts, satisfied to undergo torture indescribable. He prescribes nothing internally, for he knows nothing of medicine, nor of the distinctions and forms of *Cancer*, but gives simply a box of ointment, composed, as we believe, of *Tartrate of Antimony and Lard*, a small quantity of which (a bit about the size of a bean) is rubbed into the centre or side of the part affected, which, being a powerful escharotic, inflames the tissues and sets up a wound. The process is continued weekly, and dressed with cerate or other ointment, until the part sloughs, and the Scirrhus falls out *en masse*. This torture is called 'curing.' The idea of excision or cutting the mass out is too frightful to be thought of, whilst CANCER BILLY'S treatment is borne with a fortitude indescribable. We must not forget to say, that whilst the 'torture' is going on the poor sufferer gets little sleep night nor day: nor must we overlook the mechanical contrivance, which consists of wire, worked into a semi-globular form, sufficiently large to protect the breast. Altogether the arrangement is imposing, and productive of intense satisfaction.

We have already spoken of *Tumours*, and pointed out the methods of treatment which we have found practical in non-malignant and pendulous cases; and in separating *Cancer* or *Scirrhus* from these, we do so merely with the object of simplifying the subject.

A *Scirrhus* or *Cancer* is a *Tumour* in its most malignant form, and

whilst the cure of a 'tumour' may be accomplished, in many of its simpler states, comparatively easy, *Scirrhus* or *Cancer* is altogether beyond the reach of cure.

"Cancer," Dr. COPELAND says, "consists of two stages. The first, in which it presents the appearance usually denominated 'Scirrhus;' the second, in which it softens, ulcerates, &c., and degenerates into true *Cancer* or *Carcinoma*."

"The SCIRRHUS stage commences with a tumour, of a limited local hardness,—is usually single,—is very rarely at its commencement detected in different parts at once,—and is not surrounded with a cyst. Several authors have stated the occurrence of a cyst, but OTTO more accurately excludes it from this structure. It is of importance to attend to the appearance of the disease at its commencement, as serving to indicate its nature. It is distinguished at this period by hardness, coldness, whiteness, or paleness, insensibility, and deficiency of red-blood vessels, a state indicating the low degree of vitality of the part."

"The Scirrhus structure, when fully developed, consists of a firm, hard, rugged, incompressible, and unequal mass, the limits of which are not distinctly defined. Its colour is generally of a light grey, and when cut into thin slices it is semi-transparent. Upon close inspection it is found to consist of two distinct substances: the one hard, fibrous, and organized; the other soft, and apparently inorganic [unorganized.—*Ed.*]. The former composes the chief part of the diseased mass. * * * The fibrous structure seems to be the cellular or proper tissue of the part in a state of induration and hypertrophy, assuming, in consequence of its increased density and bulk, an appearance similar to fibrous or fibro-cartilaginous structure; whilst the softer portion contained in the meshes and cells of the former appears to be merely a morbid secretion poured out by the vessels nourishing the organized fibrous tissue, and is probably the exhalation of the part, either secreted in a modified state, or accumulated and changed by the disease of its continuing structure. If this view be correct, the former, or organized part, may be considered as chiefly resulting from an altered state of nutrition in the seat of the disease; whilst the latter, or organized portion, may be viewed as proceeding from a morbid secretion, the diseased structure thus being a product of a disordered state of both the nutritive and secreting functions, most probably in consequence of alteration of the vital

influence exerted by the ganglial nerves on the capillaries of the part. * * * Scirrhus may remain nearly stationary for several years, occasioning but little constitutional disturbance; but generally an important change takes place in its structure, and the disease afterwards makes rapid progress."

"When the CANCEROUS, carcinomatous or softening, stage sets in, the Scirrhus passes into a state of unhealthy suppuration and ulceration,—unhealthy as respects the character and progress of these processes, and their contaminating influence upon the whole frame."

We see from these remarks the particular diagnostic signs of a genuine *Scirrhus*, and how little is really known of its true character. "When they commence," the same writer says, "they seldom retrograde, and the part affected is never restored to its healthy state."

"Of its causes little or nothing is known; like Scrofula, it is presumed to be hereditary. Instances are numerous of several individuals in the same family having been afflicted by it. It is almost altogether confined to persons advanced in life. Cases of the disease are very rare before the age of thirty. * * * It is generally excited by blows and external injuries, by repeated and continuous irritation, the abuse of spirituous liquors, and by low and poor diet."

TREATMENT.—The questions which present at once are:—Is it curable by medication, or should the *Scirrhus* be excised? Dr. COPELAND says, "Some writers have too exclusively viewed the disease as local; and thus, even in its advanced stages, resorted to most dangerous and painful operations to extirpate an evil which, instead of being local, proceeds from the morbid state of the system generally, and which all depressing causes (the surgical operation itself being one) rapidly increase, disposing not only to its extension in its primary seat, but also to its appearance in new situations and more vital organs. The means of cure, therefore, should have especial reference to the state of the constitution favouring its development and progress, for where the malady is advanced, local measures can at best only be palliative, and are therefore subsidiary to judiciously devised means employed internally, and assisted by suitable diet and regimen."

We have quoted thus freely from Dr. COPELAND, because his authority is the highest that can be advanced medically, and because his views coincide exactly with our own. For between three and four years, during our experience in St. Bartholomew's Hospital, seldom a week passed without operations for *Scirrhus* or *Cancer*, and yet every operator admitted that he had never cured, nor seen a case cured by it. "Sure to return sooner or later," was the universal admission.

Dr. BEACH says, "The attention of practitioners has long been directed to the vegetable kingdom for an antidote to this formidable disease; but unhappily none has yet been discovered, the properties of which are sufficiently active *invariably, or even generally, to cure it, especially when it has become confirmed*, or in the latter stages; nor have our researches into the mineral kingdom been successful."

But can malignant *Cancer* or *Scirrhus* be cured at all? Our reply emphatically is, No! Up to the present time nothing has been discovered or advanced that approaches to anything like CURE. Wherever *Scirrhus* is found, whether in the mammary glands, tongue, uterus, or other organ or part, the same difficulty presents; or whether seated in the stomach, liver, or any of the internal viscera, the result is the same. We have seen it in all classes, from the poor *sweep*, and *sweep's wife*, to the *wealthiest* of both sexes, but have never known it cured.

Dr. BEACH says, "Cancers may be cured in their incipient or forming stages, and oftentimes when they are considerably advanced or progressed. I have successfully eradicated them in numerous cases where the disease had not progressed too far." How 'far' Dr. BEACH has not told us. "It appears," he says in another place, "that in a very few well-authenticated cases, Scirrhus tumours have been removed by absorption." Just as possible, we say, as that they were "cured" by medication.

"Of nearly sixty Cancers" (removed by excision), says Dr. MONRO, "only four patients remained free of the disease at the end of two years." Three of *these lucky people* had occult *Cancers of the breast*, and the fourth an ulcerated *Cancer on the lip*. Dr. MONRO also observes that in those in whom he saw the disease relapse, "it was always more violent, and made a quicker progress than it commonly did in others on whom no operation had been performed." Hence, says Dr. BEACH, "he concludes against extirpation, and advocates

the palliative method." * * * "It is," Dr. Beach then observes, "a contested point whether a true cancerous disease is susceptible of any process by which a spontaneous cure can be effected. It appears certain, however, that a violent inflammation, ending in sloughing, may sometimes accomplish an entire separation of a cancerous affection, and that the sore left behind may heal. Facts confirming this observation are occasionally exemplified in *cases where caustic is used, and accidental inflammation have led to the same fortunate result*, as we may be convinced by examples recorded by Sir Everard Howe, Richer, and others." The latter writer, adverting to the effort which nature sometimes makes to rid herself of the disease by the inflammation and bursting of the *tumour*, relates the following case. "A woman, aged forty-eight years, of a strong constitution, was admitted into the hospital of St. Louis, with a cancerous tumour of the right breast. The swelling, after becoming softer and affected with lancinating pains, was attacked with an inflammation which extended to the skin of the part, and all the adjacent cellular membrane. The whole of the swelling mortified and was detached. A large sore of healthy appearance remained after the loss of substance, and healed in two months."

We are by no means inclined to doubt the possibility of such cures, neither by nature nor medication, but such can only take place where the mass is isolated, not where it is attached by its roots within the internal viscera, or the intercostal spaces. We have seen *Scirrhus* dissected out in the living and dead subject, and are satisfied that in all such cases the proper treatment is palliative. We call to mind many cases where our advice has been unheeded, in which patients, through the anxiety and recommendation of kind but indiscreet friends, have submitted to excision, to find too late how serious was the mistake. Just a case in point. A lady of position consulted us for a case of genuine *Scirrhus* in the right breast. She had heard of our great fame as a "herbalist," she said, and thought she should like our opinion. "We can prevent its progress," we said, "but cannot cure it." This was not satisfactory,—she wanted a *cure*, and soon after submitted to be operated upon. The part healed favourably; but in a short time the disease appeared again, extending to the Axilla, producing an œdematous condition of the arm and hand from the pressure of the *tumour* upon the axillary artery. We were again consulted, under the hope that the palliative measures promised before

the operation might be now employed. "Nothing can now be done," was the conclusion we were compelled to arrive at, and very soon after she expired from effusion of blood within the pericardium and surrounding cellular tissue.

We are not presuming that excision in no case is justifiable. Surgeons are expected to apply desperate remedies for desperate cases, and *Cancer* is just a form of disease where much fame may be acquired with very little sacrifice.

That Malignant *Cancers*, whether *Fungus Hæmatodes*, Medullary, Osseous, Fibrous, or by whatever name we may please to call them, can be cured, is denied by every honest medical practitioner of experience, and whoever has paid attention to their character and growth, examined them microscopically, and with the view of determining the question fairly, must have arrived at the same conclusion.

We have only to add, that the treatment must be directed to the sustention of the system. That it is a disease of the blood there cannot be two opinions, and that judicious remedies can do much to prevent and mitigate its virulence and progress, is certain. To presume to prescribe any specific method of cure is altogether preposterous, inasmuch as the various forms of Cancer all require enlarged experience: we shall therefore content ourselves by referring the student to the "Appendix" and "Index," where he will find the "formulas," past and present, as recommended by the most advanced minds in the profession.*

* Speaking of 'Cancer' or Scirrhus, in their various forms, Dr. J. H. PULTE, an American Homœopathic Physician, whose work was edited and revised by that very celebrated Homœopathic notoriety, Dr. JOHN EPPS, says, "we mention these diseases here, not to give their treatment, because the seriousness of their character will not allow of their being treated domestically, but it is necessary to warn patients having this disease against all those who pretend to cure them with the knife or cauterizing applications;—they always end fatally under such treatment, and increase the misery. At the same time we would advise them not to despair, *but to apply immediately to a skilful Homœopathic Physician, who possesses the only means which can rationally afford relief, and which sometimes effect a complete cure.* Indurations under the skin, in the glands, on the lips, nose, &c., with stitching pains through them, should receive attention, from the fear that they might be of the *Scirrhus* nature; if so, and if not attended to in time, they will become open Cancers."

"In such cases relief is possible, but only by the timely aid of a skilful Physician. Meantime take *Belladona* every third evening (one globule) until four doses are taken."

"In open Cancers, the distressing burning pains are relieved by *Arsenic* in solution (twelve globules in a teacupful of water). A teaspoonful every three hours, until four or six are taken."

To this Dr. Epps, the reviser and editor of the work, adds the foot-note as given below, but which of the many plants belonging to the genus "*Clematis*" Dr. John Epps has not condescended to tell us; we presume, however, it is the "Traveller's Joy;" nor whether it is to be applied externally or taken internally; nor has he said how long it took to cure the lady which the "Medical Knight" professed to cure by cauterizing. Precious humbug! Just the flimsy quackery for the age, soft and silky, but no less vile even though Homœopathic!!

"As a general rule, the first enquiry in the treatment of *Scirrhus* is—Did the disease result from a blow? If so, then *Arnica* will be usefully employed, even though the painful development of the induration may be years after. *It is* quite extraordinary what beneficial agency *Arnica* manifests under such a circumstance. *Clematis* is another remedy of the highest value, more especially when the indurations present to the touch the sensation of hard cords twisted up in knots. *As a corroboration that it is all a pretence the attempting to cure a Cancer by cauterizing applications, the following fact is interesting.* A lady is now under treatment, who was told by a Medical Knight, who professes to cure Cancer, that he could certainly cure her. He cauterized the lady several times, declaring she would be cured. She became worse and worse, and has now sought Homœopathic treatment."

Chapter XVII.

DISEASES PECULIAR TO WOMEN.

REMARKS.

"IT IS A MOST INADEQUATE EXPRESSION OF THE FACT TO SAY THAT THE COMMUNICATION OF THE KNOWLEDGE AND THE FORMATION OF THE HABITS WHICH ARE NECESSARY TO THE DUE PERFORMANCE OF THE DUTIES OF WOMEN CONSTITUTE NO ESSENTIAL PART OF THEIR EDUCATION. THE DIRECT TENDENCY OF A GREAT PART OF THEIR EDUCATION IS TO PRODUCE AND FOSTER OPINIONS, FEELINGS, AND TASTES WHICH POSITIVELY DISQUALIFY THEM FOR THE PERFORMANCE OF THEIR DUTIES. ALL WOULD BE WELL IF THE MARRIAGE CEREMONY WHICH TRANSFORMS THE GIRL INTO THE WIFE CONFERRED UPON THE WIFE THE QUALITIES WHICH SHOULD BE POSSESSED BY THE MOTHER. BUT IT IS RARE TO FIND A PERSON CAPABLE OF THE LEAST DIFFICULT PART OF EDUCATION, NAMELY, THAT OF COMMUNICATING INSTRUCTION, EVEN AFTER DILIGENT STUDY, WITH A DIRECT VIEW OF TEACHING; YET AN ORDINARY GIRL, BROUGHT UP IN THE ORDINARY MODE IN THE DOMESTIC CIRCLE, IS ENTRUSTED WITH THE DIRECTION AND CONTROL OF THE FIRST IMPRESSIONS THAT ARE MADE UPON THE HUMAN BEING, AND THE MOMENTOUS PHYSICAL, INTELLECTUAL, AND MORAL RESULTS THAT ARISE OUT OF THESE IMPRESSIONS."*

The question of the fitness of women for practicing medicine has been lately occupying public attention very freely, and already some two or three ladies have, after a severe struggle with medical corporations, secured the legal right, and are consequently licensed to practice. Of course, like all other questions, it has its advocates *pro* and *con*, and a strong party is consequently arraigned on either side ready to do battle agreeably with their prejudices and interests, as the case may be. Now we apprehend, that however much men may be opposed to ladies practicing medicine, or to the study of medicine, with the object of entering upon the monopoly, which they will (when legally qualified) be eligible to share, or, in other words, whatever opinions society may hold regarding the questionable legality or right of both sexes to share and share alike,—advantages that

* Southwood Smith's "Physical and Mental Constitution of Man."

grow out of the actual treatment of disease, there can be no objection to teaching woman the conditions which determine the health of herself and children. "Women," SOUTHWOOD SMITH says, "are the earliest teachers; they must be nurses, but they can be neither without the risk of doing incalculable mischief unless they have some understanding of the subject about to be treated. [Laws of Life and Health.] On these grounds I rest their obligation to study such subjects; and I look upon the notion of delicacy which would exclude them from this knowledge, which is calculated in an extraordinary degree to open, exalt and purify their minds, and fit them for the performance of their duties, as alike degrading to those for whom it affects to show respect, and debasing to the mind that entertains it." This much of the branches of medicine which are the common property of both sexes, but which more particularly become women, no sane man can possibly object to. "A sound mind in a sound body," said LOCK, "is a short but full description of a happy state in this world. He that has these, has little more to wish for; and he that wants either, will be but little the better for anything else." Health is, at present, the result of accident, and few, comparatively speaking, are possessed of the incomparable blessing. That such should be the case, can only be accounted for upon the presumption of ignorance, for life and health are determined by fixed laws, the knowledge of which, if understood and taught, would do a thousand times more to promote the happiness of mankind than all and every thing that has hitherto engaged public attention.

The writer from whom we have so freely quoted, says, "I am sensible of the total inadequacy of any remedy for this evil, short of a modification of our domestic institutions. Mere information, however complete the communication of it, can do little beyond affording a clear conception of the end in view, and of the means fitted to secure it." It is education which must precede the change, however; for institutions are merely the result of mind, and society can advance only in proportion as education advances. A nation of savages must be governed by savage laws, and where civilized men are too ignorant to comprehend the simple physiological fact, that healthy life can be transmitted only by healthy fathers and mothers, and neglect the study and application of these laws, the results that follow are seen in the physical and moral wretchedness which everywhere obtain.

The diseases which afflict men and women are transmitted to their children, and these, in their turn (where they survive the weakness of infancy) become the progenitors of human beings as weak or weaker than themselves. Locke, speaking of the advantages of physical education, says, "how necessary health is to our business and happiness, and how requisite a sound constitution, able to endure hardships and fatigue, is to one that will make any figure in the world is too obvious to need any proof. The consideration I shall here have of health shall be, not what a physician ought to do with a sick or crazy child, but what the parents, without the help of physic, should do for the preservation and improvement of a healthy, or at least not sick, constitution." It was said by a plain out-spoken writer, that "whatever was left out in the reproduction of life, could never be put in afterwards." There is in this fact a world of thought, which, if understood and taught in relation to the great question of health, would form a base upon which to work out a higher order of life than has hitherto obtained with the human race.

Woman may be taught,—should be taught,—to understand herself and her mission in life as the wife of man and mother of the human family; and it is necessary beyond all things that men should open their eyes and look this great necessity in the face. For very many years we have striven to produce the conviction of the importance of this knowledge upon the public mind. Single-handed we began the work of teaching the science of human life to both sexes at our residence, in Great Russell Street, London; indeed, we founded the first free medical school for males, and for teaching midwifery and the diseases of women and children to females, about eight years ago, and have since endeavoured to extend the movement in different parts of the country. We have no wish to see this knowledge monopolized or confined to any particular class; what we desire is to teach the laws of life freely to men and women without regard to position or sex, and nothing but this can, by any possibility, mitigate suffering and disease. Skilful physicians to cure us when sick are doubtless of inestimable value, but wise skilful mothers and fathers, who know how to blend prevention with cure, are a thousand times more valuable.

It will be seen from these remarks what our views are regarding the present condition of woman; and whilst we endeavour to point out the causes of the diseases to which she is peculiarly liable, and

which, to a very great extent, have grown out of the circumstances under which she has been placed, we, at the same time, direct attention to that higher order of mind through which her sufferings may be mitigated, and great future advantages secured.

MENSTRUATION.

This is no disease, but the result of a particular constitutional condition which belongs peculiarly to woman. It commences in healthy girls generally about the age of fourteen, or from that to sixteen, in some earlier and in others later. That there are disarrangements connected with it during the life of many women is true, but, wherever health obtains there is nothing to dread, for the periodical change takes place with little or no inconvenience.

Every healthy woman who is not pregnant or suckling, is subject to a discharge at certain periods from the time of puberty to the approach of old age; which, from the return being monthly, is called *Menstruation*. In some very rare cases women pass through life without it, whilst others menstruate during pregnancy, but these are exceptions, the causes of which it is not always easy to discover. It is little that need be said upon the subject, for every woman is acquainted with this peculiarity of her constitution, and knows from what circumstances it may naturally be arrested, and that the exceptions, when they occur, are evidence of something wrong. In health the 'Menstruation,' or change from girlhood to womanhood, takes place with little or no inconvenience; where the system is disordered, however, from confinement, exposure, delicacy of constitution, or other causes, it is attended with consequences of a serious character, which require in some cases careful attention.

AMENORRHŒA *(Suspended Menstruation)*.

Description.—There are two distinctly marked conditions of this disarrangement; one is *Emmenia Mensium* (retention of the menses), and the other, *Suppressio Mensium* (suppression of the menses). The former is generally accompanied with an *Anæmic* or low blood-less condition, which we shall treat under the head *Chlorosis*.

Amenhorrhœa simply implies suppression or obstruction of the menses from other causes than pregnancy or age.

Causes.—Presuming the menses to have commenced,—to have appeared at their regular periods for any length of time, and to be suddenly arrested, we may be sure that some disarrangement has taken place. Anything, therefore, that disturbs the order and harmony of the system may become the cause of this at any time. Cold, excitement, close confinement, fright, debility, &c., &c. In acute cases, that is to say, where the constitution has not been reduced by disease and a continuous train of depressing causes, there is seldom any great difficulty in their management. Where the suppression arises from chronic debility, however, or deeply-seated disease, we can only anticipate its return with the general improvement of the system.

Diagnosis.—Pains in the back and loins, headache, lowness of spirits, constipation, shivering or alternate attacks of heat and cold, with more or less hysteria, debility, &c. In plethoric cases, or where there is a full habit of body, the face is flushed, and the pulse hard and bounding.

Treatment.—*Hygiene.*—See "Index."

Treatment.—*Medicine.*—What is the general condition of the system, and what the causes of the obstruction? are the first considerations.

In simple suppression from cold, wet, or accidental causes, where the system is not reduced, prescribe—

℞ Mentha Pulegium (Pennyroyal, herb, dry)..... Two ounces.

Infuse in a gallon of boiling water, let it stand until sufficiently cool, and use as a foot bath for about ten or fifteen minutes.

As a medicine, prescribe—

℞ Podophyllin ..... One grain.
Macrotin ..... Three grains.
Zingiber (Ginger, in powder) ..... Ten grains.

Mix, and take in a half-pint of pennyroyal tea, hot, in bed, wrap up warm and go to sleep.

It is seldom more is required than to treat such cases as common colds.

Where the system is debilitated or reduced, however, through confinement or other causes, it will be necessary to treat the disease which is the remote or immediate cause of the difficulty. Remove the general disarrangement, in fact, strengthen the system, and *Amenorrhœa* will cure itself.

In cases of obstruction or "suppression of the menses" from a plethoric or full condition of body, prescribe—

℞ Daucus Sylvestris (Wild Carrot, herb, dry) ..... Three ounces.
Infuse in a gallon of boiling water, and use as a medicated bath (see "Index").

As a medicine, prescribe—

℞	Eupatorin (Purpu)	Ten grains.
	Macrotin	Ten grains.
	Hydrastin	Ten grains.
	Podophyllin	Five grains.
	Zingiber (Ginger, in powder)	Twenty-five grains.

Mix, divide into twenty powders, and take one three times a day, between meals.

In all such cases the blood is surcharged with *serum*, which it is necessary to remove; and there is nothing so well calculated to accomplish this as the "Medicated Bath." In cases where "Wild Carrot" cannot be obtained, the *Parietaria Officinalis* (Pellitory of the Wall) will well supply its place.

We are simply to bear in mind that "suppression of the menses" is a concomitant of some partial or general disarrangement, and in treating it we must direct at the same time our attention to these. It sometimes happens that nature relieves herself of the difficulty by "vicarious menstruation," that is to say, through hæmorrhage from the bowels, stomach, lungs, or nose. We see at once in such preternatural efforts the indications of treatment, and the object we must endeavour to obtain. Independently of 'suspended' or obstructed menstruation from actual debility or disease, however, there are other causes, such as imperforate hymen, tumours, &c., but these are purely surgical, and can only be treated successfully by surgical means.

Free exercise in the open air, in constitutions inclined to plethora, must be enforced; and where the suppression arises from confinement, sedentary employment, working in impure air, or causes of a similar character, to which young females are very often subjected,

cessation from labour and change of scene, pure air, exercise, and cheerful society are absolutely necessary.

See "Index" for "Formulas," &c.

DYSMENORRHŒA (*Painful Menstruation*).

Description.—It is little that need be said of this by way of description, inasmuch as the name is sufficiently expressive. More or less it is accompanied with general disarrangement, and in many cases we can do no more than alleviate.

Causes.—It is generally connected with nervous irritability. Anything, therefore, that disturbs the mind, particularly at the time of the monthly periods, will be almost sure to excite it. Excesses of every kind, particularly of the passions, constipation, plethora, want of exercise, confinement, or anything that interferes with the economy upon which the healthy action of the uterus depends.

Diagnosis.—Aching in the back and loins, extreme tenderness in the lower part of the abdomen for a day or two, or more, before the menstrual period; soreness and acute pain simulating colic, *Nausea*, *Tenesmus*, accompanied at times with *Hysteria*, *Dysuria*, and *Diarrhœa*.

Treatment.—*Hygiene.*—See "Index."

Treatment.—*Medicine.*—Attend to the general condition of the system, and note the causes, indications of treatment, &c.

Prescribe—

℞ Powdered Rhubarb ..... Twenty grains.
Macrotin ..... Ten grains.
Powdered Ginger ..... Twenty grains.
Scutellarin ..... Ten grains.

Mix, divide into twenty powders, and take one powder three times a day.

Prescribe the following as a "Medicated Bath":—

℞ Artemisia Vulgaris (Mugwort herb, dry)..... Three ounces.

Infuse in a gallon of boiling water, and when sufficiently cool let the patient stand in it whilst the skin is being bathed all over (particularly the back and

loins) with hot flannels, freely saturated, for about eight or ten minutes; after which, rub dry, put to bed, and prescribe—

℞ Mellissa Officinalis (Balm, herb, dry)..... Half-ounce.

Infuse in a half pint of boiling water, in a covered vessel, let it stand twenty minutes, strain, express, sweeten with treacle, and give hot at bed-time.

This should be taken two or three nights before the commencement of the term, and continued during the time.

A single "Medicated Bath," given as directed, is generally sufficient. "Local Medicated Baths" applied to the loins, however, will be found useful where the pains are severe.

This treatment rarely or never fails to afford the desired relief. As the pains are symptomatic of general disarrangement, however, it will be necessary to remove it, or raise the system up before the periodical difficulty can be overcome.

MENORRHAGIA (*Excessive Flow of the Menses*).

Description.—In a state of health, where the woman is neither pregnant nor suckling, the menses appear regularly about the twenty-eighth day, and continue for about three or four days, or a day longer or shorter as the case may be. In disease, as in age, they gradually diminish, become irregular, or cease altogether. If the flow exceeds the fifth day, and has been in excess, we may consider it as "immoderate;" where it continues, however, as it does in some cases almost constant, it is an evidence of great disarrangement, requiring medical attention.

Causes.—A plethoric, lax, debilitated condition of body, arising in some cases from constitutional causes; in others from inactivity, want of exercise, confinement in heated rooms or a close atmosphere, sloppy food, the constant use of tea and coffee, indulgence in strong drinks, excess of the passions, frequent miscarriages, or anything that enervates or weakens the system.

Diagnosis.—Pains in the back and head, with alternate attacks of shivering, flushes of heat, and in plethoric cases a strong hard pulse. Where the system is much debilitated, however, the pulse is feeble, the face pallid, and the patient hysterical, the respiration is

also more or less affected, and the marks of general disease may be very distinctly traced.

TREATMENT.—*Hygiene.*—See "Index."

TREATMENT.—*Medicine.*—Where the system is simply in a lax condition, exercise and cold shower baths are indicated. Indeed, in all cases of *Menorrhagia* they may be resorted to with confidence, if graduated and applied to suit the condition of each particular case. The one great consideration is how to brace up the system, and wherever the patient can take them; that is to say, where the constitution is sound, and the power of reaction sufficiently strong, cold shower baths should on no account be neglected; but where there is great delicacy, the cold "Towel Bath," or "Cold Air Bath," may be used with advantage in proportion to the strength. In very delicate cases we should prescribe the "Cold Air Bath," and, as the strength improves, the "Cold Towel Bath."

The vulva and hypogastric region, or the lower part of the abdomen, should be bathed with cold water freely, at the same time every morning, or, if convenient, a cold sitz bath may be prescribed.

Attend to the general condition of the system, and prescribe, as a daily medicine—

℞ Geranin ..... Twenty grains.
Prunin ..... Twenty grains.
Hydrastin ..... Ten grains.
Capsicum (Cayenne, in powder) ..... Ten grains.

Mix, divide into twenty powders, and take one three times a day.

In lax plethoric cases, keep the bowels comfortably free. Prescribe—

℞ Aperient Pill ..... Five grains.

Two at bedtime.

In delicate cases, where the stomach is at fault, prescribe—

℞ Compound Lobelia Pills ..... Two and a half grains.

One after meals, or three daily.

And where the liver is implicated, the

℞ Hepatic Pill ..... Two and a half grains.

One every night or every second night, as requisite.

In cases of extreme debility, where there is no distinctly marked organic disease, prescribe—

℞ Tincture Hydrastin ..... One drachm.
Tincture of Peruvian Bark ..... Quarter ounce.
Tincture of Geranin ..... Quarter ounce.
Tincture of Ginger ..... One drachm.

Dose: from fifteen to twenty drops, or a quarter of a teaspoonful, four times a day, in a tablespoonful of cold water.

The following may also be used, in change, with advantage :—

℞ Tincture of Calamus ..... One drachm.
Tincture of Orange Peel ..... One drachm.
Fluid Extract of Rhus Glabrum (Sumach Berries) One drachm.
Tincture of Ginger ..... One drachm.

Dose : from ten to twelve drops in a teaspoonful of cold water, four times a day.

It is important to bear in mind that wherever the menses are irregular, in excess, painful, diminished, or vicarious, that the system is more or less disarranged, and that in the treatment of all such cases this must form the base or foundation of treatment. It is also important to bear in mind that dietetics have much to do in the treatment of all disease, but in none more so than in cases of this kind.

For Formulas of Tinctures, Pills, &c., see "Index" and "Appendix. See "Index" also for "Domestic Medicated Wines," "Cold Air Baths," "Sitz Baths," "Towel Baths," "Dietetic Table," &c.

CHLOROSIS (*Green Sickness*).

Description.—This disease or disarrangement is common to young girls, and arises in a great measure from a low condition of the system and the change which she is called to pass through at that particular period of life which precedes fully developed womanhood.

Causes.—It is connected more or less with *Amenorrhœa* or suppressed menstruation, *Anæmia*, *Cachexia*, or deficiency of the crassamentum or red blood globules.

Medical men are not agreed exactly as to the causes of the exhaustion or bloodlessness so distinctly marked in such cases; there

can be no doubt, however, that debility and depraved sexual excitement has much to do with it.

DIAGNOSIS.—Weariness, palpitation of the heart, pains in the back, loins, and hips: flatulency in the stomach and bowels; countenance of a greenish or dusky white cast, lips pallid, breathing hurried and difficult under exertion, pulse feeble, appetite depraved, feet œdematous, lowness of spirits, &c., &c.

TREATMENT.—*Hygiene.*—See "Index."

TREATMENT.—*Medicine.*—The indications of treatment are to correct the system and restore the periodical or natural functions of the uterus.

"Cold Towel Baths" in the morning, and free exercise in the open air daily, must be enforced.

Prescribe, as a medicine,—

℞ Fluid Extract of Hydrastin..... Two drachms.
Antispasmodic Tincture ..... Half drachm.
Tincture of American Mandrake..... Half drachm.
Pure Soft or Spring Water, sufficient to fill an eight ounce bottle.

Dose: a small tablespoonful the first thing in the morning, and last thing at night.

Prescribe, also,—

℞ "Compound Carbon Pill" .... Five grains.

One immediately after meals.

Change of scene, or removal from the town to country or country to town will be equally beneficial; marriage, however, where there is no constitutional disease or abnormal impediment, is in such cases desirable.

Good cheerful society, and relaxation from the particular employment in which the patient has been engaged, greatly assist a return to health.

There is little to do apart from attention to hygiene, to take the medicine as prescribed, and follow out the directions. Renew, in fact, the crassamentum or red blood globules, and *Chlorosis* will cure itself.

VICARIOUS MENSTRUATION.

DESCRIPTION.—We have directed attention to this, in our remarks upon *Amenorrhœa*, and can only add that it is simply an effort of nature to accomplish relief by preternatural means.

CAUSES.—A full or plethoric habit of body, obstruction from cold, advancing age, or change of life.

DIAGNOSIS.—Aching pains in the head, back, and loins, flushing of the countenance, weariness, difficulty of breathing, often attended with cough, constipation of the bowels, irritability of temper, nervousness, &c., succeeded by profuse hæmorrhage from the bowels, stomach, lungs, nose, and sometimes from the ears.

To those unacquainted with the causes, this is exceedingly alarming; in the generality of cases, however, there is nothing to be 'alarmed' at.

TREATMENT.—*Hygiene.*—See "Index."

TREATMENT.—*Medicine.*—The indications of treatment are to allay the fears of your patient by stating at once the cause of the hæmorrhage, and to mitigate, as far as possible, intensity of symptoms, but do not interfere with nature by resorting to violence of any kind. That is to say, prescribe neither styptics, cold effusions of ice, or any thing that may have a tendency to check the discharge.

Support the system with the "Digestive Food," nutritious broths, gruel, strengthening medicine, &c. There is nothing required beyond this, so far as regards the hæmorrhage. As soon as it has ceased, however, and the excitement has passed, proceed to treat the causes, that is to say, restore the system, and the menses will regulate themselves in their own proper time. Except in advancing age or natural cessation, there is nothing to fear in these changes during the life of woman; and where the system is in health they take place, as we have said, with little or no inconvenience.

LEUCORRHŒA (*Whites*).

DESCRIPTION.—This is a disease of debility, or relaxed irritable

condition of the *vagina* and *uterus*. It was originally applied to the white mucous discharge common in these conditions of the parts, but is now employed as a general term to express almost any kind of exudation, no matter of what kind or colour.

Causes.—General debility and relaxed condition of the system, from hereditary or other causes, indolence, confinement in ill-ventilated apartments, excitement, *Chlorosis*, inflammation, luxury, or anything that weakens the system. It follows generally as a sequelæ of *Gonorrhœa*, or from any form of infectious disease that may be communicated, no matter from what cause.

Diagnosis.—Vaginal discharge, more or less constant, sometimes white and thin, or tenacious, thick, and ropy; at other times greenish, purulent, and offensive. More or less the health is affected,—the temper irritable,—the bowels generally constipated, and the nervous system much disordered.

Treatment.—*Hygiene.*—See "Index."

Treatment.—*Medicine.*—Carefully examine into the causes, make sure that your *diagnosis* is correct, for both the uterus and vagina are liable to other forms of disease which it is necessary to distinguish. Ascertain, if possible, whether the discharge arises immediately from debility of the parts, that is to say whether it is idiopathic or dependent upon communication. In very many cases married women suffer from the latter, but have no idea whatever as to its true cause. Many young women also suffer from this; in such cases, however, it is difficult to arrive at the truth.

The indications of treatment are to brace or tone up the system, remove the irritability immediately from the parts, and arrest the discharge. As a means of accomplishing this, "Cold Shower, Towel, or Air Baths" should be employed, as recommended in *Menorrhagia*, according to circumstances, or the condition of each particular case. Injections of cold water, in simple cases of relaxation or debility, will be found exceedingly beneficial; and wherever the cure can be effected by them it is generally more permanent.

Prescribe—

℞ Hydrastin ..... Ten grains.
Hamamelin ..... Twenty grains.
Leptandrin ..... Ten grains.
Zingiber (Ginger, in powder) ..... Twenty grains.
Mix, divide into twenty powders, and take three daily, or one powder between meals.

Leucorrhœa is generally more or less complicated with dyspeptic or gastric disease. In all such cases prescribe—

℞ Compound Lobelia Pills, from two and a half to five grains, according to the condition of the patient.

Where it is accompanied with *Gastrodynia* (pains in the stomach) or *Pyrosis* (water-brash) prescribe—

℞ Compound Carbon Pills ..... Five grains.
One or two after meals, daily.

In cases resulting from Gonorrhœa the treatment must be directed first to the general condition of the patient, and second to the parts. The system must be first raised up, or fitted for more stringent applications. The feeling on the part of the patient is to be relieved from the discharge; and the medical attendant, in his desire to do this, generally pursues a wrong course. Attention, we say, to the general health, through the application of baths, medicine, &c., should precede all other remedial measures; any other procedure will, without doubt, end in disappointment.

Prescribe—

℞ Compound Solidified Copaiba Pills ..... Five grains.
From four to six daily,

And

℞ Barosmim (Buchu) ..... Half drachm.
Macrotin ..... Twenty grains.
Hydrastin ..... Ten grains.
Mix, divide into twenty powders, and take three powders daily, or one immediately after meals.

As an injection, prescribe—

℞ Oak Bark, crushed ..... Four ounces.
Tincture of Geranium Maculatum (Cranesbill) ..... One ounce.
Gently simmer the bark in three pints of soft rain water down to a quart, express, let it stand until cold, filter, add the 'tincture,' and use night and morning.

As an aperient, prescribe—

℞ Compound Powder of Leptandrin,

From one to two grains daily, as necessary.

The injection may be made more effective with equal parts of Catechu and Oak Bark; or by adding to each injection a half-drachm of Tincture of Benzoin. The latter should be mixed with the former immediately before using, as it is readily precipitated.

The diet should be attended to, sexual abstinence insisted on where possible, and change recommended when practicable.

For "Compound solidified Copaiba Pills," "Digestive Food," "Dietetic Table," "Tinctures," &c., see "Index" and "Appendix."

CESSATION OF THE MENSES (*Change of Life*).

Description.—This is no disease, but simply a natural result of advancing age. It commences about forty-five or from that to fifty, in healthy females, and rarely extends beyond fifty-five. The two periods in woman's life, that is to say, the commencement and ending of menstruation, are both considered critical, as indeed they are, but this arises more from adventitious causes than from the change itself. A girl in health, if placed under favourable circumstances, passes from girlhood to womanhood with little or no disarrangement, just as a healthy child cuts its teeth; and a woman whose constitution has not been broken down with disease ceases to menstruate with just as little danger. Confinement, anxiety, care, trouble, poverty, and hard usage, however, very often break up her health, and long before the time comes when the change should take place, she finds herself irregular, and troubled with almost every pain possible to name.

Causes.—When the constitution is unimpaired, advancing age is the only cause of the cessation; but when it is broken down, the change is marked by irregularity. In some it may cease for months, and then appear again suddenly, accompanied with extreme pains in the back, head, stomach, and loins. In others it becomes *vicarious*, whilst others may see the slightest show regularly for very many months; and others again, from some abnormal cause, cease so early even as thirty or five and thirty.

DIAGNOSIS.—In health, cessation of the menses is marked with little or no disturbance; in disease, with suffering physically and mentally. By "little or no disturbance," we mean that *the menses* subside by a very gradual process, sometimes appearing monthly, and decreasing until they finally disappear or cease altogether; in others appearing once only, twice, or three times for some twelve or sixteen months, and then finally ceasing without impairing the constitution. This is the natural process or change, as it takes place where the system is not diseased; when it is so, however, it becomes quite a different affair.

TREATMENT.—*Hygiene.*—See "Index."

TREATMENT.—*Medicine.*—What is the condition of your patient, and what the disease under which she labours? is it constitutional or organic? These are the considerations which must engage our attention, for the immediate difficulty connected with the case is a small matter in comparison to the remote. For the time being, therefore, attend to the symptoms, whatever, or wherever they are, and after this to the deeper-seated causes. Is it the stomach, liver, uterus, bladder, kidneys, intestines, or any other organ that is the seat of the difficulty? If so treat the disease, whatever it is. Is it a case of pure debility, or a wearing out of the system? In such cases mitigate symptoms, and nourish and sustain the patient under her difficulties, for little or nothing more can be done. The change, when the body is in health, takes place naturally, with no inconvenience; and the nearer we can reach this, or raise our patient up to a healthy condition, we carry her much more safely through the difficulty.*

For the treatment of every form of disease from which the cessation becomes difficult, see "Index;" and for formulas, &c., see "Appendix."

* There are many other disarrangements connected with the life of woman besides these treated, such as *Prolapsus Uteri*, or falling of the womb; Puerperal Fever, Ovarian Tumours, Disarrangement of the Uterus, &c.; but these cases are all surgical, and can only be treated successfully under proper surgical supervision.

For Diseases of Women and Children, as connected with parturition, see our work on Midwifery. Price 2s. 6d.

Chapter XVIII.

ENTOZOA (Vermes, Worms).

REMARKS.

"PARASITES ARE FOUND IN ALL CLASSES OF ANIMALS, EVEN THE INVERTEBRATE; AND MANY SPECIES ARE PECULIAR TO PARTICULAR ANIMALS; THUS MAN, THE HORSE, THE DOG, THE CAT, AND OTHER ANIMALS HAVE EACH THEIR OWN PARTICULAR SPECIES OF TAPE WORM, WHICH IS NOT FOUND IN THE REST."

There is not a single organ or even part of the human body but is liable to be infested with parasites or worms. The skin with *Scabies Acarus;* the liver, brain, and kidneys with *Hydatids;* and the intestinal canal with *Tape* (or flat worms), *Lumbricoides* (or round worms), *Ascarides* (or thread worms), and a variety of others which it is unnecessary to enumerate. Wherever found, however, they are the result more or less of disease. There are five kinds of worms usually enumerated as common to the *Primæ Viæ.*

1*st.*—ASCARIS LUMBRICOIDES, (long round worm).
2*nd.*—ASCARIS VERMICULARIS, (small thread worm).
3*rd.*—TRICHURIS, (long hair-tailed thread worm).
4*th.*—TÆNIA SOLIUM, (common tape-worm).
5*th.*—TÆNIA LUTA, (broad tape-worm).

DESCRIPTION.—The *Ascaris Lumbricoides* (long round worm) varies from five to six inches in length, it is generally found in the intestines, but occasionally in the stomach, from whence it is at times passed by vomit.

The *Ascaris Vermicularis* (small thread worm) is from a third to half an inch in length, it is generally found in the rectum, where it propagates, and passes during the night often in great quantities. They are more common to children, but are sometimes found in adults.

The *Trichuris Lumbricoides* (long hair-tailed thread worm) is from an inch to an inch and a half in length, it is found in the cœcum or commencement of the large intestines.

The *Tænia Solium* (common tape worm) measures from twenty feet and upwards, it is articulated or united by joints having an opening on either side, it is found generally in the intestines, but sometimes it occupies the whole of the primæ viæ.

The *Tænia Lata* (broad tape worm) differs simply in its being shorter and broader, and from the opening in its joints or articulations being in the middle, instead of on either side. It is found in the intestines, and its average length is about fifteen feet.

The *Tænia Solium* is most common in England, Holland, and Germany; and the *Tænia Lata* in Russia, Holland, and Switzerland. In France both species are common.

Causes.—It is little that can be said with anything like certainty, regarding the cause or causes of worms. All we know of a positive character is, that they are more common to such as are feeble or constitutionally delicate, or who live upon impure or poor badly cooked food. It is presumed by some authors that the atmosphere and water have much to do in their propagation, whilst others contend that the climate is more at fault, but this is at best little better than speculation. We have found the small thread worms as common in the children of the wealthy as of the poor, and the round and tape worms in the comparatively robust; generally speaking, however, the delicate suffer most. That there is some peculiar constitutional idiosyncrasy or enteric morbid condition which give rise to them there can be no doubt; indeed we know that, more or less, they depend for their existence upon disease of the whole or some part of the *Primæ Viæ*, which doubtless in its turn depends upon the constitution, which it is first necessary to cure, before they can be removed.

Diagnosis.—The only positive or certain evidence we have of the existence of worms, is their expulsion, all else is uncertain; generally speaking, however, the diagnosis may be formed pretty correctly from the following symptoms:—

Irregular or impaired appetite, offensive breath, swelling and hardness of the abdomen, restlessness, fretfulness of temper, grinding of the teeth, picking the nose, pinching or griping of the bowels, itching of the seat, slimy stools, vertigo or giddiness, dimness of vision or partial blindness, pallor and shrinking of the features, fever, convulsions, &c.

TREATMENT.—*Hygiene.*—See "Index."

TREATMENT.—*Medicine.*—We know nothing that has produced greater confusion of opinion amongst medical professors than the treatment of worms, and generally speaking nothing has proved more unsatisfactory; the reason of this is, because it has been taken for granted that to expel them was to cure the disease, whereas, this is nothing more than a preliminary part of the treatment. Generally speaking, the patient is satisfied if the entozoa can be removed; he is desirous of seeing them, and asks only for their complete expulsion. It is to this fact that the general dissatisfaction, and want of permanent success in the treatment is due. To remove the worm or worms is perfectly correct, but to stop at this point is altogether a mistake. What then is the condition of the patient, what the age, in what part of the *Primæ Viæ* are the entozoa or worms located, and what is their character?

Is it the ASCARIS LUMBRICOIDES (long round worm)? If so, treat it as follows:—

Abstain from food for a few hours, or in other words, take nothing from dinner time, and just before going to bed, prescribe—

℞ Chloride of Sodium (common Salt) ..... One table-spoonful.
Chenopodium Anthelminticum (Worm Seed). One drachm.
Mix, and take in a small teacupful of cold water.

In the morning, fasting, prescribe—

℞ Senna (Alexandria, in powder) ..... One drachm.
Ginger, in powder ..... Half drachm.
Mix, and take as the last, in a teacup of cold water. Take no food until after the bowels have been freely relieved.

This quantity is for an adult; and should be regulated in proportion to age, in children. We are treating, be it remembered, the

Ascaris Lumbricoides or long round worm, and as our purpose is to destroy it, the medicine should be taken every night and morning, or every second night and morning until it is expelled.

Dr. BEACH says,—"The following preparation will be found effectual in expelling different kinds of worms from the system :—

℞	Spigelia Marilandica (Carolina Pink)	Half ounce.
	Senna (Alexandria)	Half ounce.
	Fraxiunus Ornus (Manna)	Half ounce.
	Chenopodium Anthelminticum (Worm Seed)	Half ounce.

Bruise all, and add to the powder one pint of boiling water, let it stand a short time in order to extract the strength of the articles, sweeten with molasses and add a small quantity of milk. Dose for a child five years of age : a gill three or four times a day on an empty stomach; if this does not purge, increase the dose until the effect is produced."

He also recommends the following :—

"℞	Oil of Wormseed	Half ounce.
	Oil of Tansy	Half ounce.
	Oil of Turpentine	Half ounce.
	Croton Oil	Two drachms.
	Castor Oil	Four ounces.

Mix. Dose: for a child one year old, a teaspoonful in a little milk for three days; then omit for three days, and resume for three days more."

"Worms," he says, "sometimes ascend into the throats of children and choke them. This symptom may be readily removed by giving a little salt and water, and repeating it occasionally. This will be found a very valuable remedy for different kinds of worms; it will often expel them; is always a preventive; and, should none exist, it will cleanse the stomach and bowels and prove very beneficial."

In quoting from Dr. BEACH, we desire it to be understood that we do not hold ourselves responsible for the harmlessness nor result of the remedies. Croton oil, for instance, is, in large doses, an irritant cathartic poison, two drops of which is a full dose for an adult, and we name it in order that the student may administer it with proper care; presuming that it is prepared, however, according to Dr. BEACH'S *formula*, a half ounce phial bottle full will be sufficient for a child twelve months old, one week, and this should be handed to the parent or attendant with proper precaution and careful direction.

The following, without the croton oil, is recommended by Dr. King:

℞ Oil of Wormseed ..... One ounce.
Spirits of Turpentine ..... One ounce.
Castor Oil ..... One pound.

Mix. Dose: for a child, one teaspoonful every hour until it operates; for an adult, one tablespoonful.

Almost any strong vegetable bitter if given at bedtime, and fasting, with a pretty strong purgative will expel the round worm. We call to mind a case of a little boy, about the age of seven or eight years, who quite inadvertently drank very freely of *wort* or fresh brewed ale, which set up through the oxygen of the blood rapid fermentation, and as a consequence strong purgation; the result was the expulsion of as many of these worms as would fill a large teacup, embedded in slimy mucous, clustered or knotted, with little or no fæcal matter.

Where the powdered herb can be taken it is generally more efficient than the infusion; nor is there any difficulty in administering it in this way when dealing with adults; it is quite different, however, with children, for they dislike bitters in any form, as bad as the worms. Prescribe—

℞ Artemisia Absinthium (common Wormwood, in powder)... One ounce.
Senna (Alexandria, in powder) ..... Half ounce.
Chloride of Sodium (common Salt)..... Two ounces.

Mix, and take a tablespoonful in a teacupful of cold water night and morning. Eat nothing three hours before taking the medicine at night, nor for three hours after taking it in the morning.

In the absence of *Artemisia Absinthium* or common wormwood, the powdered *Menyanthes Trifoliate* (buckbean), or the powdered *Artemisia Abrotarium* (southernwood) may be used. In cases of children, the powders alone may be formed into a conserve, or mixed with treacle; a teaspoonful or tablespoonful of which may be given night and morning. We are to bear in mind that the general health must be attended to, and that the peculiar condition of the system from which the worm is propagated must be removed. In ordinary adult cases, the following infusion will answer every purpose:—

℞ Artemisia Absinthium (common Wormwood herb, dry) ... One ounce.
Ginger, (in powder) ..... One drachm.

Infuse in a pint and a half of boiling water, in a covered vessel, let it cool, strain, express, add six ounces of treacle, and take a teacupful at bed time every night.

This medicine, followed in the morning, fasting, with a strong

cathartic, will remove the *Ascaris Lumbricoides* (long round worm) in the generality of cases, not only in adults, but in children; as a means of removing the germ or ova, however, it is most excellent, and, prescribed in the form given, altogether harmless.

As a vermifuge aperient, or purge, for an adult, prescribe—

℞ Spigelia Marlindica (Pink root, in powder)..... Two drachms.
Podophyllin..... Five grains.
Ginger, in powder ..... One drachm.
Triturate or mix well, divide into seven parts, and take one part in a little of the "Digestive Food."

The *Ascaris Vermicularis* (small thread or seat worm) is, as we have already stated, most common with children, although they are sometimes found in adults, and more particularly in females labouring under a morbid or irritable condition of the vulva and vagina. We have now under treatment a very severe case of this kind. There is seldom any great difficulty in removing these tedious parasites from children, if hygienic measures are strictly enforced with proper medication. Invariably we have found, more or less enteric or mesenteric disease associated with them, and whilst dealing immediately with the effects, we must at the same time carefully attend to the causes. Cold ablutions, mornings, free exercise in the open air, and plain wholesome diet should be strictly enforced. As a medicine prescribe—

℞ Podophyllin ..... Three grains.
Hydrastin ..... Five grains.
Santonin ..... Twenty grains.
Tincture of Ginger ..... One drachm.
Distilled or soft water ..... One drachm.
Triturate or well rub up the powders in a mortar with a small quantity of the water, gradually adding the whole, after which add the "Tincture." Dose: from six to eight drops three times a day for a child two years old, or more or less according to age.

As a means of removing the irritation, prescribe—

℞ Common Lard ..... One ounce.
Myricin ..... Half drachm.
Sanguinarin ..... Half drachm.
Mix with a spatula upon a clean slab, wash the seat with ordinary soap and cold water at bed-time, and use as follows. Place a little of the ointment, about the size of a small bean, over the seat, cover the end of a No. 8, 9, or 10 elastic bougie tightly with a bit of soft cotton lint, and gently pass it up the rectum about an inch or rather more, it may be allowed to remain for a few minutes,

and before removing it a few turns should be made with the bougie, in order to make sure that every part has been equally touched with the ointment.

Where the worms are found in large quantities, as is sometimes the case with children, and passed involuntary, a tablespoonful of fine flour, mixed in half a teacupful of milk, and given every night at bedtime upon an empty stomach, will readily accelerate their expulsion.

In cases of adults the medicine recommended for the *Ascaris Lumbricoides* (long round worm) will answer every purpose, with the addition of applying or passing the ointment into the rectum; or if the attendant prefers to prescribe the same medicine, he can do so with equal success by increasing the quantity or dose agreeably to the necessities of each particular case. We have simply to bear in mind that it is the system which requires improvement, and that whatever immediate results may follow, they can be of little or no permanent good without this can be effected. Beside the medicine recommended, many others equally simple may be employed, but we have rarely found it necessary to resort to any other.

The *Tænia Solium* (common tape worm) is often very difficult to remove, and in some cases, where the patient is delicate and the system greatly reduced, great judgment and care are necessary. Worms have different habits, and the medicine that will remove one kind will have little or no effect upon another, hence the failures or mishaps that take place where we neglect to discriminate between them. It is a very common fault in authors to treat worms as "worms," without paying any regard to this.

Dr. Beach relates the following history of a case of tape-worm which, from its severity, we think of sufficient interest to quote *in extenso*. "The symptoms of a tape-worm, as related to me by Miss Dumonline, who had suffered with it for twenty-five years, are in substance as follows.—It commenced at the age of ten, and afflicted her to the age of thirty-five. The worm often made her distressingly sick at the stomach; she would sometimes vomit blood and be taken suddenly ill, and occasionally while walking. It caused symptoms of many other diseases, great wasting of the flesh, &c. Her appetite was capricious, being at times good and then poor for months, during which time her symptoms were much aggravated; sickness, vomiting, great pain in the chest, stomach, and side; motion in the stomach, and also in the bowels, with pain, a sense of fulness, or swelling and beating, or

throbbing in the same; dizziness, heaviness of the eyes;—and she was altogether so miserable that she feared it would destroy her; when she laced or wore anything tight it produced great distress, the worm appeared to rise up in her throat and sicken her. Her general health was very bad. At intervals, generally some time after taking medicine, pieces of the worm would pass from the bowels, often as many as forty during the day, all alive, and would swim in water. Miss Dumonline stated that she had employed twenty physicians at different periods, and taken a hundred kinds of medicine, but without expelling the worm. She had taken spirits of turpentine, but could not retain it on her stomach; under these circumstances I commenced my treatment:—cowhage stripped from the pod, a small teaspoonful three times a day, to be taken fasting, in a little arrowroot jelly; then occasionally a purgative of mandrake (about a half a teaspoonful of the powder, we should presume, with an equal quantity of powdered ginger,—*Ed.*); in connection with this, I directed her to eat freely of garlic and common fine salt. I gave these under the belief that each article possessed vermifuge properties, without ever having administered them for tape-worm. After having taken them for some time, all her unfavourable symptoms ceased, and subsequently the remaining portion of the worm passed lifeless from her—an unprecedented circumstance. She immediately recovered, and has since retained her health, and there is no evidence that there is any part of the worm remaining. The patient stated that the quantity of worm which passed from her during the time she had been afflicted would fill a peck measure and reach one mile in length. Her relief and gratitude may be better imagined than described. I have a portion of this worm in my possession.

"When once the tape-worm begins to pass the bowels, care must be taken not to break it off, for it will then grow again, it has this peculiar property. It should be wound around a stick or something else, and very moderate extension made upon it whenever there is a motion of the bowels."

The opposite page—(see page 715, vol. I, Beach's American or Reform Practice of Medicine)—is occupied in full with a woodcut, representing a monstrous "*Tape-worm*—500 feet in length—passed by a lad in Whitecross-street, London." The medicine or formula which he employed in this case is not given, but we presume it was similar to that already quoted.

We have directed attention to these cases for the purpose of pointing out a principle which Dr. BEACH has neglected to explain. Miss Dumonline, it will be seen, had taken certain kinds of medicine for years with little or no effect, was much reduced, and Dr. BEACH wisely preferred to treat her in quite a different way. He gave cowhage and destroyed it mechanically, and afterwards mandrake to expel it, it passed dead, therefore, *en masse*.

In all delicate patients this is proper treatment, hence the folly of presuming to kill, dislodge, and expel the worm alive where the system is too weak to tolerate the medicine. State to your patient when in a weak delicate condition what you mean to do, point out the way in which the worm may be expected to pass, and he will be satisfied to know that it is being done by a simple and gradual rather than by a violent process. In such cases, prescribe—

℞ Mucuna Pruriens (Cowhage, hairs of the fruit) ..... Half ounce.
Honey, or Treacle, sufficient to form into a conserve.

Dose: a tablespoonful at bed-time upon an empty stomach; to be followed in the morning with

℞ Podophyllum Peltatum (American Mandrake, in powder) Half drachm.
Zingiber (Ginger, in powder) ..... Half drachm.

This should be given fasting, nor should anything be taken except warm tea until the bowels have been freely moved. Taken in this way or as recommended by Dr. BEACH, it is equally efficient.

Cowhage, we have said, acts mechanically, that is to say, it irritates the worm and dislodges or disconnects it from the mucous membrane of the *primæ viæ* without acting upon the patient, hence its value in all cases of external debility. But where the worm has not made any great inroad upon the system we can deal with it much more readily and with quicker results. Prescribe, fasting,—

℞ Aspidium Filix Mas (Male Fern, oil of) ..... One drachm.

Or more or less according to age and the strength of the patient, as follows:—put a little thin cream, new milk, or essence of peppermint, into a teacup and pass it round the sides, add the oil and drink off. Take no kind of food, and, in about two or three hours afterwards, prescribe—

℞ Jalap (in powder)..... Twenty grains.
Ginger (in powder) ..... Twenty grains.

Mix, and give in roast apple or in any other simple vehicle.

The purpose of this is to expel the worm alive; whenever the treatment is adopted, however, the medical attendant should either

have the patient under his own immediate supervision, or he should give full directions, so that the case may be carefully watched, in order that he may be sure it has terminated satisfactory, or in other words, that the worm has passed without breaking, which it will be liable to do by its own weight and length unless proper care is taken. To prevent this, it should be lightly rolled on a small round stick as it passes.

The fresh dry root is equally efficacious.

Prescribe—

℞ Aspidium Filix Mas (Male Fern, in powder)..... Three to five drachms.
Mix, and take in a teacupful of cold water, at bed-time, upon an empty stomach.

In the morning prescribe—

℞ Podophyllum Peltatum (American Mandrake, in powder) ..... Half drachm.
Zingiber (Ginger, in powder)..... Half drachm.
Jalap (in powder)..... Twenty grains.
Mix in a teacupful of cold water, take fasting, and eat no food of any kind until the bowels have been freely moved.

In the generality of cases the worm will be expelled alive in the course of three or four hours, and where it fails to do this the treatment should be continued, in which case it will either pass off *en masse* or be destroyed and carried off with the motions.

As a means of strengthening the system and removing the predisposing causes, the medical attendant should not fail to treat the patient, after the removal of the worm, in order that its return may be prevented.

We have often said, when speaking of the wonderful resources of the organic kingdoms, whether for health or disease, that "nature is no niggard;" which is literally true of the provision for 'worms,' not only as applied to man, but also to the lower animals. There is no necessity, therefore, to resort to metals and minerals of any kind, for prepare or use them as we may, they cannot possibly be other than injurious.

Presuming it possible that these remedies should fail, as they may do in certain cases, prescribe the following:—

℞ Punica Granatum (Pomegranate, bark of the root, in powder) ..... Two ounces.
Divide into eight parts. Dose: one part every night, upon an empty stomach, in a teacupful of cold water.

To be followed next morning with—

℞ Senna (Alexandria, in powder) ..... One drachm.
Zingiber (Ginger, in powder) ..... Half drachm.
Chloride of Sodium (Common Salt) ..... Two drachms.
Mix, and take in a glass of cold water.

Food should not be taken for at least three hours before giving the medicine at night, nor for about the same time after giving it in the morning; and as the worm is seldom passed until the third or fourth day after taking it, the reason why it is prescribed for eight consecutive nights and mornings will be easily understood. In cases, however, where the worm is passed complete or perfect earlier, the medicine should be taken in smaller quantities, in order that the ova or predisposing condition may be removed.

"Pomegranate has been known and used as a vermifuge in all ages, but generally in the form of a decoction. Given in a powder as now prescribed, however, it acts mechanically as well as medically; it is therefore more certain."

Another very excellent remedy for Tape-worm is the *Areca Catechu*. Prescribe as follows :—

℞ Areca Catechu (Gum Catechu, in powder) ..... Two ounces.
Podophyllin ..... Ten grains.
Zingiber (Ginger in powder) ..... Two drachms.
Triturate or well rub up in a mortar; divide into eight parts. Dose: one part at night and another in the morning, in a tumblerful of warm milk.

If the patient is delicate, the medicine, prescribed in smaller quantities, will be equally efficacious, the difference being that whilst the larger doses generally destroy and expel the worm alive, the smaller remove it by a slower process.

In treating Tapeworm with simple Catechu, the dose may be increased to five drachms, and given fasting, as follows :—

℞ Gum Catechu ..... Five drachms.
Warm Milk ..... A teacupful.
Mix, and drink fasting. Take no food until the worm has passed.

A strong purgative should be taken the night before.

In concluding the present chapter we would briefly remind the student that the treatment recommended throughout is that which we have found most certain. In spite, however, of all that we can do failure may take place.

During the treatment care must be taken to produce as little irritation as possible. The "Digestive Food" is therefore most excellent for the prevention of this. It may be also used for some time after the expulsion of the worm.

Dr. COPELAND, speaking of the subsequent or after treatment, says, "It is obvious that the diet of patients who have suffered from worms should be nutritious, digestible, and restorative, whilst it ought not to be too rich or full, or calculated to produce general plethora or local congestions, as of the liver, &c. The regimen ought to be regulated so that sufficient exercise may be taken in the open air, and all causes of debility should be avoided." It is not enough for us to simply remove or expel the worm, even though the patient should be satisfied to see it done. What we require is to remove the conditions out of which it arises. The system must therefore be raised up, for which purpose see "Appendix" and "Index," "Medicated Wines," "Tonics," "Digestive Food," "Formulas," &c.

Chapter XIX.

APPENDIX.

FORMULÆ, &c.

REMARKS.

"INFINITE WISDOM HAS PROVIDED INNUMERABLE REMEDIES IN THE EARTH, AIR, AND WATER, WHICH EXERCISE A SPECIFIC EFFECT UPON SOME ONE PART OF THE HUMAN ECONOMY MORE THAN UPON OTHERS. SOME ACT UPON THE BOWELS AS PURGATIVES, OTHERS UPON THE STOMACH AS EMETICS; SOME PRODUCE EXPECTORATION, OTHERS PERSPIRATION; SOME PURIFY THE BLOOD OF MORBID MATTER, OTHERS GIVE IT RICHNESS, VITALITY, AND FREE CIRCULATION; SOME AROUSE UP HEALTHY ACTION IN THE LIVER, REMOVE OBSTRUCTIONS, AND REGULATE ITS SECRETIONS; OTHERS ACT DIRECTLY UPON THE KIDNEYS, INCREASE OR DIMINISH THE QUANTITY OF URINE, ALLAY IRRITATION, BURNING, SCALDING, AND INFLAMMATION; SOME ACT MORE PARTICULARLY UPON THE GLANDULAR SYSTEM, REMOVING SWELLINGS, ABSCESSES, AND ULCERATIONS; SOME ARE PARTICULARLY ADAPTED TO DISEASES OF THE SKIN, THE JOINTS, TENDONS, AND LIGAMENTS, WHICH FROM BEING PURELY OF A LOCAL CHARACTER, ARE BEST PREPARED AND USED AS WASHES, LOTIONS, LINIMENTS, OINTMENTS, &C., &C.; SOME ACT AS TONICS, WHICH STRENGTHEN AND INVIGORATE THE SYSTEM; OTHERS AGAIN ALLAY SPASMS, CRAMPS, FAINTNESS, SWOONING, AND OTHER LIKE AFFECTIONS. IN SHORT, AS MULTITUDINOUS AS ARE OUR DISEASES AS VARIOUS AND NUMEROUS ARE THE REMEDIES WHICH THE ALL-WISE AND BENEVOLENT CREATOR HAS PROVIDED FOR THEIR REMOVAL."

We have more than once stated, whilst descanting upon the order and economy of Providence, that "nature, with no niggardly hand, has dispensed liberally and bounteously the remedies necessary for the diseases of the human family, wherever, and under whatever conditions it is found," and this is certainly a great fact. We therefore propose in the present chapter to give, in addition to the remedies prescribed throughout the work, a brief "Materia Medica," and a few choice formulas, which may be employed advantageously whenever the medical attendant may consider it advisable.

The words "Materia Medica" simply mean material substances employed in the cure of disease; and in the present instance we propose to select a few of the most valuable.

ACTIVE OR CONCENTRATED REMEDIES.

By "Active or Concentrated Remedies" we mean, the medicinal properties of plants in a concentrated or active form.

Until within the last quarter of a century little or nothing was known of these preparations, and whatever knowledge we have is due almost entirely to America. It will be seen by reference to the different forms of disease treated throughout the work, that we have introduced them in cases where experience has taught us they can be advantageously employed. Let no one presume, however, that the crude preparations can be dispensed with, or that they can ever be wholly superseded by active or concentrated medicines. We have but to call to mind the fact that the solid matter of which our bodies are composed represent but a fraction of the whole,—that the fluids, in fact, make up full seven-eighths of the body, to see at once how necessary it is in fevers and inflammations, and those abnormal conditions of life which more immediately affect the liquid mass upon which the solid structures depend, to act at once upon the disease through the only medium by which it can be acted upon. Who, for instance could be so deficient as to prescribe an active agent of any kind when a patient is parched with fever, without first relieving the thirst. In such a case, a hot infusion of herbs, or even a draught of toast and water, acidulated water, or even cold water, as the case may be, will be of more advantage than any of the active principles, valuable as they are in very many cases.

The system of medication, therefore, which we have pursued throughout the work, we shall continue in the "Appendix," that is to say, we shall either combine the concentrated medicines, and prescribe them together, in their active form; or with such of the crude agents as we consider better calculated to meet the indications of disease.

EMETICS.

These remedies, by their specific action upon the stomach, produce

vomiting; and the great number found in the vegetable kingdom fitted for this purpose, is the best evidence we can have of their utility. We select as

Examples.

1*st.*—Lobelia Inflata.
2*nd.*—Ipecacuanha.
3*rd.*—Sambucus Nigra.
4*th.*—Sanguinaria Canadensis.

1*st.*—LOBELIA (Spirituous Tincture). Prepare as follows:—

℞ Lobelia (herb and seed, coarsely powdered) ... . Two ounces.
Proof Spirits of Wine ..... One pint.

Macerate from twelve to fourteen days, shaking the bottle daily; after which filter for use.

Dose: as an emetic, from one to two drachms; as a nauseant, from five to twenty or thirty drops.

2*nd.*—LOBELIA (Compound Tincture). Prepare as follows:—

℞ Lobelia (herb, in powder) ..... One ounce.
Bloodroot (in powder) ..... One ounce.
Skunk Cabbage (in powder) ..... One ounce.
Pleurisy Root (in powder) ..... Half-ounce.
Ginger (in powder) ..... Half-ounce.
Vinegar ..... One pint.
Proof Spirits of Wine ..... Three pints.

Prepare by maceration, filter, and use as the last.

3*rd.*—LOBELIA (Acid Tincture).

Prepare with Vinegar, same quantity of herb and seed as recommended in the first preparation.

4*th.*—LOBELIA (Syrup of):—

Add to each pint of "Acid Tincture" one pound of Sugar, gently simmer over a slow fire for about half an hour, skim off impurities, bottle, cork, and keep in a cool place.

5*th.*—LOBELIA (Oxymel of):—

Add to each pint of "Acid Tincture" one pound of Honey, and prepare as the last.

The last three preparations are used principally as emetics for children.

Dose: from one half-teaspoonful to one, two, or more, in any simple infusion, or alone, as most convenient.

6th.—Lobelia (Wine of):—

℞ Lobelia (herb and seed, in powder)..... One and a half ounce.
Macerate fourteen days in a pint and a half bottle of the best Sherry Wine.

This is a mild and most useful preparation, and may be prescribed as an emetic or expectorant in all cases where there is loss of tone in the system from chronic disease or exhaustion.

In addition to the above preparations, Lobelia may be employed in the form of a fluid extract, as well as in the forms recommended throughout the work.

Dr. King tells us there is much discordance of opinion among medical men as regards its narcotic properties. "It is," he says, "primarily emetic, nauseant, expectorant, relaxant, sedative, and antispasmodic; and secondarily cathartic, diaphoretic, and astringent. When chewed, Lobelia produces a disagreeable sense of burning and distension, which extends into the œsophagus, terminating in nausea and vomiting, with oppressive prostration, relaxation of the muscular system, and a languid pulse. In doses of ten or twenty grains of the leaves or seeds it is a prompt and efficient emetic, and may be given in all cases where emesis is indicated. Its action is somewhat modified by a combination with ipecacuanha and other vegetable emetics, and rendered safer and more effectual. In very small doses it excites diaphoresis, increases expectoration, diminishes cough, and counteracts spasmodic action. In all diseases of the respiratory organs, as Croup, Pneumonia, Pertussis, Catarrh, Asthma, and those fits of Dyspnœa resembling Asthma, it will be found useful either as an expectorant or emetic. As with Ipecacuanha so with Lobelia; it will be found very useful in all febrile diseases, especially during their earlier stages, as it relaxes the system, modifies arterial excitement, and produces diaphoresis, thus tending to equilibriate the circulation, and assisting the vital powers to eliminate morbid humours. As an expectorant, it may be used in tincture, combined with Tincture of Blood Root, Syrup of Senega, Oxymel of Squill, Wine of Ipecacuanha, &c. In all cases where relaxation of the system is desired, either to subdue spasm, or otherwise, Lobelia will be found a very valuable article;—probably no remedy is more effectual. Spasmodic movement is incompatible with nervous and muscular relaxation, hence we find prompt relief in Epilepsy, Hysteria, Cramps, Tetanus, Chorea, Convulsions, &c., by the exhibition of Lobelia in doses sufficient to excite

nausea and relaxation. Rigidity of the os uteri has often been overcome by the employment of this drug internally, or as an enema."

The value of the remedy, apart from our experience of a quarter of a century, is thus borne out by one of the highest medical authorities in the United States, and we quote him for the purpose of assisting to break down a professional prejudice as unwise and useless as it is injurious.*

"The officinal preparations are :—

"TINCTURE LOBELIA:

℞ Lobelia (dried and bruised) ... Two ounces.
Proof Spirit ... One pint.

By maceration and percolation."

"ETHEREAL TINCTURE OF LOBELIA:

℞ Lobelia (dried and bruised)... Two and a half ounces.
Spirit of Ether... One pint.

Prepared by maceration."

Dose of the Tincture or Ethereal Tincture : 10 min. to ½ fl. drm., or more, carefully watching any symptom of vascular depression."

IPECACUANHA:—

This plant, like Lobelia, is most valuable as an emetic, and may be prepared and used in a similar manner; that is to say, in powder, either alone or combined.

The following preparations are most excellent:—

1. Ipecac. (Powder of).
2. Ipecac. (Wine of).
3. Ipecac. (Compound Powder of).
4. Ipecac. (Compound Powder of, with Opium).

IPECAC. (Powder of).

℞ Powdered Ipecac. ..... Q. S. (sufficient.)

Dose: from three to ten grains as a nauseant; from fifteen to thirty grains as an emetic.

* The old story told by Thacher when poor Thomson was prosecuted for using it three-quarters of a century ago in the United States, is still retailed by modern writers who know nothing practical about it. "In too large quantities it produces depression, nausea, cold sweats, and even death, preceded by convulsions; it closely resembles tobacco in its action.† All over a half fluid drachm must be carefully watched, as being, we presume, dangerous."

† "Essentials of Materia Medica." By Alfred Baring Garrod, M.D., F.R.S., 1864.

IPECAC. (Wine of).

℞ Ipecac. (in Powder) ..... One and a half ounce.
Sherry or White Wine ..... Pint and a half.

Macerate, shake up daily for fourteen days, and filter.

Dose: as an expectorant and diaphoretic, from ten to thirty drops; as an emetic, from a drachm to an ounce, according to age and condition of the system.

IPECAC. (Compound Powder of).

℞ Ipecac. Root (in powder) ..... One drachm.
Pleurisy Root (in powder) ..... One drachm.
Blood Root (in powder) ..... One drachm.
Nitrate of Potass ..... One drachm.

Mix and triturate, or well rub up in a mortar.

Dose: from five to ten grains, or less or more as necessary.

Most useful in Fevers and Inflammations, as a sudorific, diaphoretic, expectorant, and nauseant.

IPECAC. (Compound Powder of, with Opium).

℞ Ipecac. (in powder) ..... Thirty grains.
Opium (in powder)..... Fifteen grains.
Camphor (in powder)..... Forty grains.
Bitartrate of Potass ..... Three drachms.

Mix, and triturate as the last.

Dose: from three to five grains every three or four hours, in febrile or inflammatory disease, or more or less according to age.

As an anodyne and diaphoretic, this preparation is most valuable. Dr. KING, speaking of it, says, "It is of great efficacy in all febrile and Inflammatory Diseases, Diarrhœa, Dysentery, Gout, Cholera Morbus, Rheumatism, After-pains, all cases of nervous irritability or excitement; and wherever an anodyne conjoined with a diaphoretic is indicated. It favours perspiration without augmenting the heat of the body. The above is the original 'formula,' but practitioners vary in preparing it according to their favourite views. Thus some omit the 'Bitartrate of Potass' (cream of tartar) and substitute Nitrate of Potass, or Bicarbonate of Soda, whilst others omit the Opium, substituting for it *Lactucarium* or *Lactucin* (Lettuce, concentrated principle of), or twice the quantity of *Cypripedin* (American Valerian, concentrated principle of). * * * Some authors suppose it possesses narcotic properties. Given in scruple (twenty grain) doses it operates as an active emetic, causing much nausea, continued muscular straining, with a free secretion of mucous; vomiting, however, seldom

takes places until fifteen or twenty minutes after its administration. It is inferior to no other emetic, being safe even in large doses, seldom producing painful spasms of the stomach or bowels."

It is best employed in combination with Lobelia.

SANGUINARIA CANADENSIS (*Blood Root*).

This plant, as an emetic, may be used with advantage, at any time, combined with an infusion of Boneset, Bayberry Bark, or Chamomile. It may also be combined with Lobelia or Ipecac. Dose: as an emetic, from ten to fifteen grains; as an expectorant, from three to five or six grains, or more or less, as necessary; as a nauseant, from five or six to eight or ten grains.

We might extend the number of plants which act as emetics, but having found these sufficient for every purpose in our own practice, we think it quite unnecessary.

CATHARTICS.

The remedies belonging to this class are very numerous, and their purpose is to act upon the stomach and intestines, or in other words, to remove by relaxation whatever obstructs the regular action of the internal viscera. We are not to understand, because a certain number of remedies belong to a particular class, that they are therefore purely and simply possessed of the one particular specific action under which they are named. Aloes, Jalap, and Castor Oil, for instance, are pure cathartics: whilst the Podophyllum Peltatum, Leptandria Virginica, and Rhubarb are primarily cathartic and alterative; the secondary action of some cathartics, however, are astringent.

In the treatment of disease throughout the work, although the most valuable remedies of each particular class are employed, it is not absolutely necessary for the practitioner to confine himself to these, if his experience and judgment have made him acquainted with others better calculated to meet the indications of any particular form of disease that may come under his care.

Examples.

1. Aloes (Socotrine).
2. Podophyllum Peltatum.
3. Leptandria Virginica.
4. Castor Oil.
5. Rhubarb (Turkey).
6. Senna.

ANTHELMINTICS.

The remedies belonging to this class are, like the two already given, scattered freely throughout the vegetable kingdom. We have introduced some few of the most useful.

Examples.

1. Spigelia Marliandica.
2. Chenipodium Anthelminticum.
3. Polypodium Filix Mas.
4. Punica Granatum.
5. Artemisia Absinthium.
6. Dolichos Pruriens.

EXPECTORANTS.

This class of plants act upon the mucous surfaces of the respiratory organs, and are as abundant as useful.

Examples.

1. Lobelia Inflata.
2. Ictodes Fœtida.
3. Arum Triphyllum.
4. Glycyrrhiza Glabra.
5. Prunus Virginiana.
6. Inula Helenium.
7. Marrubium Vulgare.
8. Alcepias Tuberosa.

ERRHINES.

We all know the relief obtained under certain circumstances from a good hearty sneeze, and nature, ever bountiful, has supplied us with remedies calculated to promote this; but because she has done so it is no reason that we should indulge in snuff-taking, and create an evil of that which if wisely employed becomes a good.

In cases of head-ache, ear-ache, obstruction and pains in the eyes, ears, or head, sneezing often affords relief.

Examples.

1. Asarum Europeum.
2. Myrica Cerifera.
3. Hydrastic Canadensis.
4. Polypodium Filix Mas (pulv.root)
5. Lobelia Inflata (pulv. herb).
6. Nicotiana Tabacum.

SIALAGOGUES.

These remedies act on the salivary glands, producing a copious

discharge of saliva. They are useful in fevers and inflammations, particularly in a dry parched condition of the mouth and tongue.

Examples.

1. Xanthoxylum Fraxineum.
2. Calamus Aromaticus.
3. Capsicum Annum.
4. Lobelia Inflata.
5. Zingiber.
6. Stillingia Sylvatica.

DIURETICS.

The action of this class of remedies is upon the kidneys; they assist in expelling superabundant serum from the blood, are very numerous, and, as a consequence, exceedingly useful in Hydrothorax, Ascites, and all forms of Dropsy, cellular accumulations, &c.

Examples.

1. Eupatorium Purpureum.
2. Juniperus Communis.
3. Leontodon Taraxacum.
4. Copaiba Officinalis.
5. Galium Aparine.
6. Uvæ Ursi.
7. Apium Petrosilinum.
8. Sambucus Canadensis (inner bark of).

LITHONTRIPTICS.

These remedies prevent the formation of calculæ or gravel, and where cohesion has not taken place dissolve and expel the particles.

Examples.

1. Eupatorium Canabinum (root of).
2. Eupatorium Purpureum (root of).
3. Carbonate of Soda.
4. Uva Ursi (leaves).
5. Parietaria Officinalis.
6. Carbonate of Potass.

DIAPHORETICS.

These remedies promote perspiration, or, in other words, call up a re-action in the blood and expel, through the skin, morbid accumulations; hence their utility in Catarrh, Diphtheria, Inflammation, Fever, Cholera Morbus, Dysentery, Diarrhœa, &c. They are exceedingly numerous, and their value in the treatment of disease generally is altogether beyond calculation.

Examples.

1. Eupatorium Perfoliatum.
2. Asclepias Tuberosa.
3. Hedema Pulegiodes.
4. Nepeta Cataria.
5. Mellisa Officinalis.
6. Achillea Millefolium.
7. Archangelica.
8. Thymus Sylvestris.
9. Mentha Piperita.
10. Sambucus Nigra (flowers of).

NERVINES.

These medicines act through the blood upon the nerves, relieve irritation, and assist in giving a tone to the system generally; hence their utility in Hysteria, Chorea, Tetanus, Delirium, Neuralgia, &c.

Examples.

1. Cypripedium Pubescens.
2. Scutellaria Lateriflora.
3. Valeriana Officinalis.
4. Latuca Elongata.
5. Panax Quinquefolia.
6. Archangelica (root of).
7. Angelica Atropurpurea.
8. Feniculum Semina.

ANTI-SPASMODICS.

This is a class of remedies which by their action modify and remove spasm; they are similar in their properties to the last.

Examples.

1. Lobelia Inflata.
2. Caulophyllum Thalictroides.
3. Ferula Assafœtida.
4. Veratrum Viride.
5. Ictodes Fœtida.
6. Moschus Moschieferus (musk).
7. Leonurus Cardiaca.
8. Gelseminum.

EMMENAGOGUES.

This class is highly useful in promoting Menstruation, hence their utility in obstruction of the periodical returns, and in the relief which they afford in painful cases and others of a similar character.

Examples.

1. Botrophus Racemosa.
2. Actea Alba.
3. Asclepias Syrica.
4. Asarum Candense.
5. Tanacetum Vulgare.
6. Rosmarinus Officinalis.
7. Polygonum Hydropiperoides.
8. Hedema Pulegioides.

STIMULANTS.

This class of remedies is most numerous, and highly useful in cases of Dyspepsia, Putrid Sore Throat, and Debility, Low Fever, and loss of tone in the system generally.

Examples.

1. Capsicum Annum.
2. Zingiber.
3. Myrrha.
4. Sinapis.
5. Origanum Vulgare.
6. Camphora.
7. Mentha Piperita.
8. Myrica Gale.
9. Cunila Mariana.
10. Caryophyllus Aromaticus.

TONICS.

This class of medicines is indicated in all cases of Debility, in Intermittent and Remittent Fevers, particularly during their convalescent stages, and, indeed in all cases where it becomes necessary to raise the system above the condition left by almost any form of acute disease.

Examples.

1. Cinchona.
2. Hydrastis Canadensis.
3. Columba (root).
4. Populus Tremuloides.
5. Chelone Glabra.
6. Cascarilla.
7. Berberris Canadensis.
8. Sabbatia Angularis.
9. Aristolochia Serpentaria.
10. Anthemis Nobilis.
11. Coptis Trifolia.
12. Prunus Virginiana.

ASTRINGENTS.

These medicines are highly valuable in all relaxed conditions of the system, and he who is well experienced in practice can scarcely fail to treat any case successfully where their use is indicated.

Examples.

1. Geranium Maculatum.
2. Myrica Cerifera.
3. Nymphæ Odorata.
4. Trillium Pendulum.
5. Hammamelis Virginica.
6. Rhus Glabrum.
7. Quercus Robur.
8. Rubus Strigosus.
9. Rubus Villosus.
10. Statice Limonium.
11. Agrimonia Eupatoria.
12. Prunus Canadensis.
13. Polygonum Bistorta.
14. Tormentilla.

ALTERATIVES.

This class of remedies change the character of the blood, through their action upon the organs of nutrition. They are very numerous, and in diseases of a scorbutic, syphilitic, and scrofulous character, are invaluable.

Examples.

1. Podophyllum Peltatum.
2. Leptandria Virginica.
3. Sarsaparilla.
4. Galium Aparine.
5. Stillingia Sylvatica.
6. Rumex Crispus.
7. Rumex Hydrolapathum.
8. Aralia Racemosa.
9. Phytolacca Decandra.
10. Daphne Mezerian.
11. Arctium Lappa.
12. Solanum Dulcamara.
13. Mercurialis Perrennis.
14. Guiacum.

ANTISEPTICS.

This class of remedies retards or prevents putrefaction, and modifies or removes the offensive effluvia of putrid gangrenous wounds.

Examples.

1. Carbo Ligna.
2. Calx Chlorinata.
3. Chlorine.
4. Geranium.
5. Bistorta.
6. Indigofera Tinctori.
7. Myrica Cerifera.
8. Hydrastis Canadensis.
9. Myrrha.
10. Acidum Pyroligonum.

ANTACIDS.

These remedies obviate or remove acidity from the stomach and intestinal canal. They are indicated in cases of Gastrodynia, Urinary Calculi, Water-brash, and Heart-burn.

Examples.

1. Carbonate of Soda.
2. Bicarbonate of Potass.
3. Carbonate of Ammonia.
4. Carbo Ligna.

DEMULCENTS.

This class of remedies possess more or less nutritious properties,

and their purpose is to soothe the parts with which they come in contact, and shield the membranes of the stomach, intestines, and mucous surfaces. Applied externally to irritable and inflamed surfaces, scalds, and wounds, they are extremely beneficial.

Examples.

1. Ulmus Fulva.
2. Linum Semina.
3. Althea Officinalis.
4. Oleum Oliværa.
5. Convallaria Multiflora.
6. Gum Acacia.

It will be understood from these examples, that medicinal substances are arranged agreeably with their virtues, and it is easy to see that their successful administration depends upon our knowledge —1*st*, of the nature of the disease, and 2*nd*, of the character of the medicine. We have elsewhere observed that although curative or medicinal agents are classed under distinct heads, that they possess compound rather than simple qualities. As regards the distribution of these qualities, we have only to add that whilst a large number are contained in the roots and seeds, others are found in the flowers and leaves. Some give off their active principles by aqueous or watery infusions and decoctions; others by alcohol or through the agency of spirits and vinegar; some are resinous, others oleous or extractive, &c., &c. In the old practice, that is to say, when physicians scribbled prescriptions, and took only guinea fees, it was not necessary for them to know anything of pharmacy, nor of the chemistry of animal and vegetable life. How food and medicine were assimilated, or what their constituents were, was not for them to trouble about. The cook prepared their food, and the apothecary their medicines; but little more was necessary, and, as a consequence, little more was known. But times are changed, "guineas" are scarcer, or they do not fall into the doctor's hands as they once did. It is enough for us to say just now, however, that old things are passing away, and that the medical practitioner of the future must know his profession as a positive science, and be capable of working it out in all its branches. He must feel that it can admit of no break or loss of continuity, that its foundation is as old as the hills, and that a full and complete understanding of all its parts can alone enable him to master it as a perfect whole.*

* In addition to the classes of medicines enumerated, there are several others, such as aromatics, anodynes, narcotics, anæsthetics, &c.; but for all really practical and useful purposes, the examples given are sufficient.

Chapter XX.

APPENDIX, continued.—FORMULÆ, &c.

REMARKS.

IT WAS SAID OF A VERY CELEBRATED PHYSICIAN, THAT WHEN HE BEGAN PRACTICE HE HAD TWENTY REMEDIES FOR EVERY DISEASE, BUT THAT BY THE TIME HE HAD FINISHED PRACTICE HE HAD BUT ONE REMEDY FOR TWENTY DISEASES.

Every man of experience knows that mankind is made up of extremes; but of all the 'extremes' that have ever agitated the human mind, those of medicine have been the greatest. At the present time, for instance, there are many men of otherwise good talent who reject all medicine, and positively do nothing but look at their patients. They follow what is called the "expectant practice." Others depend entirely upon water, and others again upon dynamic or infinitesimal mineral and vegetable poisons; whilst the more heroic practitioners are content with nothing less than a heap of every class. To enumerate the whole of the agents contained in the Pharmacopœia would fill a work equal in bulk to the one before us, and many of these are of a character so destructive that given in any shape they cannot fail to do mischief.

HUFELAND says, "An instinctive impulse to relieve suffering, was the origin of the healing art;" as it doubtless was; but he who knows anything of modern medicine is well assured that little of the original 'instinct' remains. It is not our purpose to find fault, however, but to create, if possible, a higher order of thought, and a more successful class of practitioners. With this object alone the present work is written, and the 'formulæ' which we now introduce, whilst they may be of little use to those of extensive experience, will nevertheless be of much benefit to others entering upon practice. One very great advantage in them is that they are harmless, hence their value. MEDICINE, WE CONTEND, IS TO THE SICK WHAT FOOD IS

TO THE HEALTHY, VITAL AND ASSIMILATIVE; WHATSOEVER IS NOT SO CAN BE NEITHER ONE NOR THE OTHER.

TINCTURES.

Tincture of Myrrh (Simple).—

℞ Myrrh (in powder) ..... One ounce.
Pure Spirits of Wine (Alcohol) ..... Twelve ounces.

Mix, digest or macerate fourteen days, shake up daily, express, and filter.

Tincture of Myrrh (Compound).—

℞ Myrrh (in powder) ..... Two ounces.
Capsicum (in powder) ..... One ounce.
Pure Spirits of Wine (Alcohol) ..... One quart.

Prepare as the last.

Myrrh is an antiseptic and tonic, and highly useful as an external or internal application. Dose: from a half teaspoonful to a teaspoonful, in a little hot water, sweetened, wherever a stimulant is necessary. The Simple Tincture is very useful applied externally to recent Wounds or old Gangrenous Sores.

Tincture of Black-root.—

℞ Black-root (powder of) ..... Three ounces.
Dilute (Proof) Spirits of Wine ..... Pint and a half.

Macerate, shake up daily, express, and filter. Dose: from a half to a fluid drachm, three times a day. Useful in Biliary Complaints, Chronic Diarrhœa, Disease of the Liver, Mesenteric Disease, &c.

Tincture of Cranesbill.—

℞ Cranesbill Root (powder of) ..... Three ounces.
Dilute (Proof) Spirits of Wine ..... Pint and a half.

Prepare by maceration, &c., as the last. Dose: from one fluid drachm to two, in a little hot water, sweetened. It is very useful in Dysentery, Diarrhœa, English Cholera, Choleraic Disease, &c.

Tincture of Ginger.—

℞ Ginger (in powder) ..... Two ounces.
Pure Spirits of Wine (Alcohol) ..... Three-quarters of a pint.

Macerate fourteen days, shake daily, express, and filter. Dose: from one half to a fluid drachm.

May be combined with the last, also with Tincture of Mandrake, Rhubarb, &c., or used alone. Excellent in Flatulent Disease, Gastrodynia, or pain in the stomach.

Tincture of Mandrake.—

℞ Mandrake (root in powder) ..... Three ounces.
Pure Spirits of Wine (Alcohol) ..... One pint.

Macerate fourteen days, shake daily, express, and filter. Dose: from ten to sixty drops.

Highly useful in Bilious complaints, Disease of the Liver, Mesenteric Disease, &c. May be used alone, or combined with Tincture of Leptandrin, Ginger, or Capsicum; or with any of the Oils, according to the indications of the disease.

Tincture of Cinnamon.—

℞ Cinnamon (powder)..... One and a half ounce.
Dilute (Proof) Spirits of Wine ..... One pint.

Macerate fourteen days, shake up daily, express and filter. Dose: one or two drachms.

Excellent in Mesenteric Disease, Cholera Infantum, Diarrhœa, Leucorrhœa, &c. May be combined with other medicines, or taken alone.

Antispasmodic Tincture.—

℞ Lobelia (herb and seed, in powder)..... One ounce.
Skunk Cabbage (in powder) ..... Half ounce.
Scullcap (in powder) ..... Half ounce.
Cayenne (in powder) ..... Half ounce.
Dilute (Proof) Spirits of Wine..... One quart.

Macerate fourteen days, shake daily, express, and filter. Dose: from ten to sixty drops, or less or more.

Highly useful in Spasm, Cramp, Convulsions, Hysteria, Tetanus, Neuralgia, Palpitation of the Heart, &c.

Tincture of Cayenne.—

℞ Cayenne (in powder) .... Half ounce.
Dilute (Proof) Spirits of Wine ..... One pint.

Macerate fourteen days; shake daily, express, and filter. Dose: from five to sixty drops in a little hot water, sweetened.

One of the best known remedies for Delirium, Putrid Sore Throat (Diphtheria), lowness of spirits, Hypochondria, Dyspepsia, or wherever a natural stimulant is indicated.

Tincture of Catechu (Compound).—

℞ Catechu ..... One and half ounce.
Cinnamon ..... One ounce.
Dilute (Proof) Spirits of Wine ..... Pint and half.

Macerate for fourteen days; shake daily, express, and filter. Dose: from thirty drops to a dessertspoonful, in a tablespoonful of gum arabic mucilage, three or four times daily.

Highly useful in old Gleets, Leucorrhœa, Chronic Diarrhœa, &c.

TINCTURE OF SWEET-FLAG.—

℞ Sweet-flag (powder of root) ..... Two ounces.
Dilute (Proof) Spirits of Wine..... ..... Pint and half.

Macerate fourteen days, shake up daily, express, and filter. Dose: from a half to two drachms.

Highly useful in offensive conditions of the stomach and bowels, Mesenteric Disease, ulceration of the mouth, throat, and internal viscera.

COMPOUND ACETATED TINCTURE OF BLOOD-ROOT.—

℞ Blood-root (powder of)..... ..... One ounce.
Lobelia Seed (in powder)..... One ounce.
Vinegar..... ..... One pint.

Macerate fourteen days, shake daily, express, and filter. Dose: from one to two drachms in Bone-set or Chamomile tea, whenever an emetic is indicated.

TINCTURE OF BLOOD-ROOT.—

℞ Blood-root (in powder) ..... Two ounces.
Dilute (Proof) Spirits of Wine ..... One pint.

Macerate fourteen days, shake daily, express, and filter. Dose: as an emetic, from one to two drachms, combined with Tincture of Lobelia. As a nauseant and expectorant it should be taken in less quantity. As an external application to inflamed mucous surfaces it is unsurpassed by any known remedy.

Highly useful in Inflammation of the Eyes, used alone or diluted with an equal quantity of soft or distilled water.

TINCTURE OF GOLDEN SEAL.—

℞ Golden Seal (in powder) ..... Three ounces.
Dilute (Proof) Spirits of Wine ..... One pint.

Macerate fourteen days, shake up daily, express, and filter. Dose: from ten to sixty drops two or three times a day in a little cold water.

This is an excellent tonic, and may be used with advantage in all cases of Gastric Debility, Loss of Appetite, Disease of the Liver, Chronic Diarrhœa, Leucorrhœa, &c.

COMPOUND TINCTURE OF GOLDEN SEAL.—

℞ Golden Seal (in powder) ..... One ounce.
Lobelia Seed (in powder) ..... One ounce.
Dilute (Proof) Spirits of Wine ..... One pint.

Macerate fourteen days, shake daily, express, and filter. This may be made with equal parts of the Alcoholic Tinctures of Golden Seal and Lobelia.

It is used in all cases of Diseased mucous surfaces. Snuffed up the nostrils, or applied with a camel hair brush, in Inflammation of the Schneiderian Membrane, or Chronic Catarrh, it is most efficacious. It is also highly useful in Ophthalmic cases.

Tincture Bistort.—

℞ Bistort Root (in powder) ..... Three ounces.
Dilute (Proof) Spirits of Wine..... Pint and a half.

Macerate fourteen days, shake daily, express, and filter. Dose: from a half to two drachms.

Most excellent in cases of Diarrhœa, Choleraic Disease, Dysentery, Relaxed condition of the Uvula, Ulceration of the Mouth, Tongue, and Stomach. May be used alone or combined with other remedies.

Tincture of Queen's Delight.—

℞ Queen's Delight (in powder) ..... Three ounces.
Pure Spirits of Wine..... Pint and a half.

Macerate fourteen days, shake daily, express, and filter. Dose: from thirty to sixty drops.

Excellent in all Cutaneous Affections, Scrofula, and Syphilis in its primary, secondary, and tertiary forms. It has been presumed that this tincture is inert unless prepared from the fresh root; but this is a mistake; its essential active principle is in the oil, and where the root is well preserved its medical virtues are retained.

Compound Tincture of Benzoin.—

℞ Benzoin ..... One ounce and half.
Purified Borax ..... One ounce.
Balsam of Tolu ..... Half ounce.
Powdered Aloes ..... Two drachms.
Pure Spirits of Wine (Alcohol) ..... One pint.

Macerate fourteen days, shake up daily, express, and filter. Dose: from thirty to sixty drops, in old Diseases of the Air Passages, Lungs, &c.

Most valuable as an external application to recent Wounds, Ulcers, Burns, and Scalds. This is commonly known as "Friars' Balsam."

Tincture of Arnica.—

℞ Arnica Flowers ..... Ounce and a half.
Dilute (Proof) Spirits of Wine ..... One pint.

Macerate fourteen days, shake up daily, express, and filter.

Highly beneficial as an external application to Glandular Swellings, Inflammation, Wounds, and Ecchymosis or Coagulated Blood, as in Black Eyes, Bruises, &c.

Tincture of Cantharides.—

℞ Spanish Flies (in coarse powder) ..... Half ounce.
Dilute (Proof) Spirits of Wine ..... One pint.

Macerate fourteen days, express and filter. Dose: from ten to fifteen drops three times a day.

Highly useful in old Gleets, Chronic Gonorrhœa, Amenorrhœa, and Incontinence of Urine.

TINCTURE OF ASSAFŒTIDA.—

℞ Assafœtida (in small pieces) ..... Two and half ounces.
Pure Spirits of Wine (Alcohol)..... One pint.

Macerate fourteen days and filter. Dose: from thirty to sixty drops.

Excellent in Hysteria, Chorea, Nervous Excitement, Convulsions, and Epilepsy.

TINCTURE OF PRICKLY ASH BERRIES.—

℞ Bruised Prickly Ash Berries..... Four ounces.
Dilute (Proof) Spirits of Wine..... One pint.

Macerate fourteen days, shake up daily, express, and filter. Dose: from one to two drachms every three hours.

Highly useful in cases of Debility, particularly in Typhus and Low Fever cases generally. It is especially indicated in Flatulency of the Bowels, Cholera, and Rheumatism.

TINCTURE OF GENTIAN.—

℞ Gentian Root (crushed)..... Two ounces.
Dilute (Proof) Spirits of Wine..... One and a half pint.

Macerate fourteen days, shake up daily, express, and filter. Dose: from thirty to sixty drops.

Excellent tonic, useful in cases of Debility, loss of appetite, &c.

TINCTURE OF CAMPHOR.—

℞ Camphor ..... Two ounces.
Pure Spirits of Wine (Alcohol)..... One pint.

Dose: from five to twenty or thirty drops.

Highly useful in all cases where a stimulant is indicated; in Flatulency, Nausea, Griping Pains, Spasms, &c.

TINCTURE OF OPIUM (Laudanum).—

℞ Turkey Opium (in powder)..... One and a half ounce.
Dilute (Proof) Spirits of Wine ..... One pint.

Macerate fourteen days, shake up daily, and filter. A full dose of Opium is one grain, and this quantity is contained in about fifteen drops of the above preparation.

ANODYNE, OR CAMPHORATED TINCTURE OF OPIUM.—

℞ Turkey Opium (in powder)..... One drachm.
Benzoic Acid ..... One drachm.
Camphor..... Thirty grains.
Oil of Anise ..... One drachm.
Dilute (Proof) Spirits of Wine ..... One quart.

Macerate fourteen days, shake daily, and filter. Dose: from five to ten drops for a child; for an adult from a half drachm to a drachm.

This is an excellent "Palliative," and may be used with advantage in all painful cases where an "Anodyne" is indicated.

Tincture of Peruvian Bark.—

℞ Yellow Peruvian Bark (in powder)..... Four ounces.
Dilute (Proof) Spirits of Wine ..... Pint and a half.

Macerate fourteen days, shake up daily, express, and filter. Dose: from a half drachm to a drachm.

Exceedingly useful in Intermittent Fever, combined with other medicines, or taken in cold water, during convalescence.

Tincture of Rhubarb.—

℞ Rhubarb (Turkey, in powder) ..... Three and a half ounces.
Cardamom Seeds (crushed) ..... Half ounce.
Dilute (Proof) Spirits of Wine ..... One quart.

Macerate fourteen days, shake up daily, express, and filter. Dose: as a purgative, from a drachm to half a fluid ounce; as a stomachic, from a half drachm to a drachm.

Tincture of Aconite (Root of).—

Much prized by the Homœopaths in the prevention and treatment of Measles, Scarlatina, and diseases of a similar character.

Dose: In the milder forms of the disease, one globule every two, three, or six hours, alternated with Pulsatilla.

Tincture Belladonna.—

Equally prized by the Homœopaths, in the treatment of Scarlatina. "It is" (Pulte says) "a specific for this disease, which is cured by its use alone, except in complicated cases." Dose: as the last.

Tincture Digitalis.—

This preparation is used principally in the old practice in Ascites and Hydrothorax, and as a sedative in Arterial Excitement and Disease of the Heart. It was at one time held in high estimation, but has since fallen into disuse.

The Tinctures, Concentrated Medicines, and most valuable pharmaceutical preparations, are generally kept in stock by wholesale pharmaceutists; many of them, in fact, particularly the resinoids and principal oils, are not prepared in this country at all.

Beside the Tinctures already named, the following, from their known value, and our own experience, far exceed Aconite, Belladonna, and Digitalis. Indeed we can truly say that their virtues are much more positive, and in every way safe.

TINCTURE GELSEMINUM.—

Invaluable in Intermittent, Remittent, Typhus, Typhoid, and nearly all other Fevers. Also in Puerperal Fever, Convulsions, Peritonitis, Painful Menstruation, Leucorrhœa, Neuralgia, Headache, Gout, Rheumatism, Pneumonia, &c.

Dose: from ten to fifteen or twenty drops, in a wineglassful or half wineglassful of water, every four hours.

TINCTURE OF VERATRUM VIRIDE.—

Most excellent in excessive Arterial Excitement, Pericarditis, Endocarditis, Asthma, Rheumatism, Chorea, Croup, Scarlet Fever, Epilepsy, Pneumonia, Neuralgia, Hooping Cough, Croup, or wherever an inflammatory diathesis exists.

Add to a drachm of Tincture an equal quantity of simple syrup.

Dose: begin with eight drops every three hours, increasing the quantity one or two drops, until nausea or vomiting, or a reduction of the pulse to sixty-five or seventy the minute follow; then reduce the quantity to one half in all cases. Females, and persons from fourteen to eighteen should commence with six drops, increasing one drop only, and decreasing as above. Children from two to five years of age should begin with two drops only, increasing one drop and decreasing in the same way. Below two years of age one drop every three hours will be sufficient.

Its properties are expectorant, diaphoretic, alterative, nervine, emetic, and arterial sedative.

In Pneumonia, Typhoid Fever, and many other diseases, it must be continued for from three to five or seven days; it may be continued indefinitely, in moderate doses short of nausea, without the least inconvenience.

It is important to bear in mind that it is dangerous when given in too large doses. It is for this reason that we have recommended careful supervision during its administration. Should an over-dose be given, however, from ten to fourteen drops of Laudanum, in a drachm of Tincture of Ginger, will afford speedy relief.

Dr. KING, "speaking of the Tincture of Gelseminum," says: "It is said by some to be the only agent ever yet discovered capable of subduing in from two to twenty hours, and without the least possible injury to the patient, the most formidable and most complicated, as well as the most simple, fevers incident to our country and climate, quieting all nervous irritability and excitement, equalizing the circulation, promoting perspiration, and rectifying the various secretions, without causing nausea, vomiting, or purging; and is also adapted to any stage of the disease. It may follow any preceding treatment with safety. Its effects are clouded vision, double-sightedness, or even complete prostration and inability to open the eyes, which gradually pass off in a few hours, leaving the patient refreshed and completely restored. As soon as the heaviness or partially closing of the eyes has been induced, no more of the remedy is necessary,

although these effects should follow the first dose. If carried on to such an extent that the patient cannot open his eyes, the relaxation may be too great for the system to recover from; hence its use should cease as soon as the symptoms above-named have commenced."

It will be understood from the principal tinctures being simple that any of them may be readily formed into compounds, if necessary. Thus: equal parts of Tincture of Mandrake, Leptandrin, and Ginger, become a "compound tincture" by combination. The same may be applied to all the others.

Of the relative strength of Alcohol it will be sufficient to say that the specific gravity of ardent or "Pure Spirits of Wine" is 0·794, and of Dilute or Proof Spirit 0·935. Ardent or Pure Spirit of Wine is free from water; Proof or Dilute Spirit contains one-half distilled water. The former is termed "Alcoholic Tincture," and the latter "Hydro-Alcoholic Tincture."

For the Resinoids, Extracts, Powders, Concentrated Remedies, Herbs, &c., recommended throughout the work, as well as very many others not introduced, the student is referred to the printed list, can be had at our wholesale and retail establishments, 105, Great Russell Street, Bloomsbury, London, W.C.; and 148, Briggate, Leeds, by enclosing a stamp, with address.

MEDICINAL OILS.

We have already stated that the active medicinal properties of plants differ in quality, hence the necessity of the various preparations introduced throughout the work. The "Oils" in many cases are invaluable; unlike the "Tinctures," however, they are prepared to our hands, and we have nothing to do but to combine and use them agreeably with the cases indicated. Oils are *fixed* or *volatile*, that is to say, the former, after being given off, whether animal or vegetable, are permanent, whilst the latter pass off by evaporation. We select such only as are medically useful.

Ol. Anise.—

Highly useful in Bronchial Disease and Coughs, particularly of infants. It can be taken on sugar, or combined with the Tincture of Mandrake, Ginger, Leptandrin, or indeed with any of them, agreeably with the disease indicated. Dose: two to four or six drops.

Ol. Caraway.—

Is most excellent in Griping Pains of the Stomach and Bowels, particularly of infants. Dose: the same as the last.

Ol. Peppermint.—

An excellent diffusive stimulant. Highly useful in Gastrodynia, Spasms of the Stomach and Bowels, Flatulency, &c. Dose: same as Ol. Anise.

Ol. Spearmint.—

Good to arrest nausea and sickness. As an antispasmodic it is most excellent, and highly useful as a diuretic. Dose: same as Ol. Anise.

Ol. Pennyroyal.—

Highly beneficial in Flatulent Colic, Cramp and Pains in the Stomach, Amenorrhœa, and Catarrh. Dose: same as Ol. Anise.

Ol. Fennel.—

Highly useful as a carminative, and may be used with very great advantage, particularly in the diseases of childhood. Dose: same as Ol. Anise.

Ol. Cinnamon.—

Useful in Griping Pains, and in all cases where an astringent is indicated in connection with a stimulant and antispasmodic. Dose: same as Ol. Anise.

Ol. Winter Green.—

Aromatic and stimulant. Useful in all cases where these qualities are indicated. Dose: same as Ol. Anise.

Ol. Savin.—

Stimulant, emmenagogue and abortiont, used in Amenorrhœa. Dose: from four, six, or ten drops. Ten drops given three times daily on sugar produce abortion.

Ol. Juniper.—

Excellent in Mucous Discharges of the Urethra and Vagina; also in Dropsy and Obstruction of the Urine. Dose: from five to fifteen or twenty drops.

Ol. Lavender.—

Highly useful in Nervous Debility, Head-ache, Hysteria, Chorea, &c. Dose: One to six drops.

Ol. Cubebs.—

Highly useful, used in the same cases as Ol. Juniper.

Ol. Sassafras.—

Excellent in Obstruction of the Urine, Glandular Enlargements, and Diseases of the Skin. Dose: from three or four to ten drops on sugar. Good as an external application to Wens and Bursæ.

Ol. Dill.—

The plant from which this oil is derived is the Anethum Graveolens. It is a native of Spain, but cultivated in our gardens. It is most excellent in Griping of the Stomach and Bowels, Flatulency, Convulsions, Hooping Cough, and Diseases of the Chest. Dose: from one, two, or three drops on a little sugar, or a half dozen drops to a drachm of any of the tinctures indicated in the treatment for the diseases of children, afford immediate relief.

Ol. Rue.—

Excellent in Pertussis, Hooping Cough, Hysteria, Amenorrhœa, and Dysmenorrhœa. Dose: from one to five drops three times a day.

Ol. Valerian.—

Highly useful in Chorea, sleeplessness, and Hysteria. Dose: from two to six drops.

There is nothing to add as regards the oils, except to say that they may be given on sugar, or with any of the tinctures, agreeably with the indications of cases treated, or the majority of them may be prepared and administered as essence.

ESSENCES.

Essence of Caraway.—

℞ Oil of Caraway ..... One ounce.
Pure Spirits of Wine..... Nine ounces.
Mix, agitate, or shake well up.

The proportion of spirit and oil employed in this preparation is *one* of oil and *nine* of spirit. The same rule must be observed in the preparation of any one or more of the others. Dose in proportion; that is to say, for one drop of oil ten of the essence.

INFUSIONS.

Infusions are simply powders, leaves, or herbs put into a covered vessel, upon which cold, boiling, spring, or distilled water is poured and

allowed to stand. They can be made strong or weak as required; generally speaking, however, one ounce of herbs or leaves is sufficient for sixteen ounces of water. When infusions are intended to be kept we must add one ounce of pure spirits of wine to every quart. Delicate infusions, such as Red Rose Leaves, Flowers of Ulmaria, Elder Flowers, &c., if made in the proportions named, and the spirit added as directed, will keep any length of time. The same may be said of all ordinary herbal infusions.

DECOCTIONS.

Decoctions are generally prepared from crushed barks, roots, or seeds, and some few of the heavier plants. They are gently simmered for a half-hour or hour, or more or less as necessary. They can be preserved in the same way as infusions, either simple or compound, for any length of time if kept in a cool place, by simply adding the spirit.

Infusions, decoctions, and tinctures well prepared and judiciously combined, meet the indications of almost any form of disease.

MEDICATED WATERS.

These are prepared either by distillation or by triturating any of the Essential Oils with Carbonate of Magnesia.

Cinnamon Water.—

℞ Oil of Cinnamon ..... Fifteen drops.
Carbonate of Magnesia ..... Half drachm.

Triturate or well work up the two, adding very gradually one pint of distilled water. When the whole is thoroughly incorporated filter and bottle for use.

Rose Water, Spearmint Water, Mint Water, Pennyroyal, and all the fragrant waters, may be prepared by the same process.

SYRUPS (SIMPLE).

These are prepared by adding sugar to strong infusions or decoctions of herbs, as follows:—

Simple Syrup.—

℞ Distilled Water ..... One pint.
Lump Sugar ..... One pound.

Gradually dissolve in a water bath, simmer for one hour, skim, bottle, and keep in a cool place. Used as a vehicle for more active medicines, particularly in the Diseases of Children.

Syrup of Squill.—

℞ Acid Tincture of Squill ..... Eight ounces.
Refined Sugar (in Powder) ..... One pound.
Dissolve in a water bath as the last, skim, and bottle for use.

Highly useful as an expectorant and emetic for Respiratory or Chest Disease in children.

Syrup of Orange Peel.—

℞ Dried Orange Peel ..... One ounce.
Boiling Distilled Water ..... Three quarters of a pint.

Infuse in a covered vessel, and when cool prepare in a water bath with one pound of lump sugar. Or as follows :—

℞ Tincture of Orange Peel..... One ounce.
Simple Syrup ..... Seven ounces.

Principally used as a vehicle for other medicines in diseases of childhood.

Expectorant Syrup.—

℞ Saint John's-wort (herb, dry)..... Two ounces.
Sage (garden) ..... One ounce.

Simmer in three pints of distilled or soft spring water down to a quart, express when sufficiently cool, filter, add two pounds of fine white sugar, and two ounces of Syrup of Lobelia ; simmer the whole in a water bath, in a covered vessel, for one hour ; skim, let it cool, and bottle for use. Dose : from a teaspoonful to a tablespoonful four or six times a day.

This is an excellent expectorant, and may be used with advantage in all Inflammatory or Irritable conditions of the Bronchial Tubes, Pleura, and Lungs. It is equally beneficial in Hooping Cough, Colds, &c., &c.

Scrofula Syrup.—

℞ Yellow Dock Root (dry and crushed) ..... Two ounces.
American Sarsaparilla (dry and crushed) ..... Two ounces.
Sassafras Bark (dry and crushed)..... One ounce.

Simmer in five pints of soft or spring water down to four, express when sufficiently cool, filter, add four pounds of fine white sugar, and two ounces of Tincture of Stillingia ; gently simmer in a water bath for two hours in a covered vessel, skim, let it cool, and bottle for use. Dose : from a teaspoonful to a dessert or table spoonful four times a day.

This is a preparation that may be used with great advantage in all cases of Scrofula and Secondary Syphilis, Scald or Scabbed Head, Eczema, &c.

PULMONARY SYRUP.—

℞ Horehound (herb, dry)..... Two ounces.
Coltsfoot (herb, dry) ..... Two ounces.
Sanicle, wood (herb, dry) ..... Two ounces.

Simmer in three quarts of soft or distilled water down to five pints, and when sufficiently cool express, filter, add five pounds of lump sugar, three ounces of Tincture of Pleurisy-root, two ounces of Syrup of Lobelia, and one ounce of Antispasmodic Tincture; simmer, for two hours, in a water bath, in a covered vessel; skim, and bottle for use. Dose: from a large dessertspoonful to a tablespoonful four and six times a day.

This is an excellent preparation in Cough, Pleurisy, and Consumption; and may be used with equal advantage in all cases of Respiratory Disease.

SYRUP OF RHUBARB.—

℞ Turkey Rhubarb (root, bruised) ..... Two ounces.
Boiling Soft or Distilled Water ..... One pint.

Infuse twenty-four hours, strain, filter, add one pound of lump sugar, and one ounce of Tincture of Ginger; simmer in a water bath for one hour in a covered vessel, skim, and bottle for use. Dose: from one to two teaspoonfuls.

This is an excellent preparation, and may be used in all cases where a gentle laxative is needed.

SYRUPS, *Simple*, *Compound*, *Pulmonary*, *Emetic*, *Alterative*, *Expectorant*, and all other, may be prepared upon the same principle,—that is to say, with strong Infusions, Decoctions, or Tinctures.

GARGLES.

These preparations are employed in Inflammatory and Ulcerated conditions of the Throat, Elongated Uvula, Aphonia, Ulcerations of the Gums, Mouth, Tongue, &c.

ASTRINGENT GARGLE.—

℞ Bayberry (coarse powder) ..... One ounce.
Boiling Water..... One pint.

Infuse twelve hours, strain, filter, and add Tincture of Myrrh (Simple) one ounce.

This is an excellent gargle, and may be used with advantage in all cases of Ulceration of the Tongue, Gums, and Mouth; also in Elongated Uvula, and Aphonia or loss of voice.

ANTI-FEBRILE AND INFLAMMATORY GARGLE.—

℞ Garden Sage ..... One ounce.
Cayenne (in powder)..... One drachm.
Boiling Water..... One pint.

Infuse twelve hours, strain, filter, and add Tincture of Blood-root one ounce.

In inflammation and Ulceration of the Throat, from Scarlatina, Quinsy, &c., this is one of the best gargles that can possibly be employed.

Yeast Gargle.—

℞ Brewers' Yeast ..... Two ounces.
New Milk ..... Half pint.

Mix, and sweeten with molasses.

In Ulcerations of the Throat, and Offensive Discharges from the Mouth, Gums, and Teeth, this is most advantageous, but more particularly in cases of great debility.

Stimulating Gargle.—

℞ Sumach Berries (crushed)..... One ounce.
Golden Seal (coarse powder) ..... One ounce.

Gently simmer in a pint and half of water, for half an hour, in a covered vessel, and when sufficiently cool, strain, filter, and add one ounce of Tincture of Cayenne.

In old Chronic Ulcerations of the Throat, this gargle will be found exceedingly useful.

LINIMENTS

Are preparations employed in cases of Rheumatism, White Swelling, Gout, Stiff Joints, Glandular Enlargements, Peripheral Paralysis, Quinsy, &c.

Soap or Compound Stimulating Liniment.—

℞ Castile Soap ..... Two ounces.
Oil of Sassafras..... One ounce.
Pure Spirits of Wine ..... Twelve ounces.
Distilled Water..... Two ounces.

Mix and agitate until the whole are well incorporated.

This is an excellent preparation, and may be used with advantage in Enlarged Tonsils, or swelling of the throat, and Glandular Enlargements of any kind.

Anodyne or Liniment cum Opii.—

℞ Opium (in powder) ..... Half ounce.
Camphor..... Two drachms.
Oil of Rosemary..... Half ounce.
Oil of Sassafras ..... Half ounce.
Pure Spirits of Wine..... One quart.

Mix and agitate until the whole are well incorporated.

Mellissa (Balm Wine).—

℞ Balm (herb, dry) ..... Twelve ounces.
Water ..... Two gallons.
Lump Sugar ..... Four pounds.

Boil the water and infuse the herb in a covered vessel, let it stand until about blood warm, express, strain, add the sugar and two tablespoonfuls of brewer's yeast or barm; mix well, keep it covered by the fire for forty-eight hours; after which put into a two-gallon stone jar and let it remain forty-eight hours more, uncorked. It should now be corked tightly up and kept in a cool cellar. It is important to bear in mind that the stone jar should have a spile or small tap, so that the wine may be drawn off without admitting the air, which would be done each time of using if it was thrown out from the top. Or in the absence of a stone jar it may be bottled as ginger beer in stone bottles, and used as required.

In all cases of Low Typhus, Nervous Debility, and during convalescence, this may be used with great advantage.

Ulmaria (Meadow Sweet Wine).—

This is most excellent in cases of Intermittent and Remittent Fever,—in accumulation of uric acid in the blood, or wherever the urine is surcharged with albumen or biliary deposit. In convalescence from diseases of this character it is most excellent, and may be used *ad libitum*. Prepared as the last, with the addition of one drachm of Citric Acid, which should be put into the infusion with the yeast or barm.

Compound Taraxacum (Dandelion Wine).—

℞ Dandelion (roots, green, cut thin) ..... Two pounds.
Agrimony (Eupatoria, herb, dry) ..... Four ounces.
Sugar (lump) ..... Six pounds.
Water ..... Three gallons.

Boil the roots gently for one hour, and throw the whole off upon the herb, cover up, and let it stand until about blood warm, strain, express, and add the sugar, with two tablespoonfuls of yeast; mix, let it stand in a warm place, or by the fire, covered up, for forty-eight hours; after which put the whole into a three-gallon stone jar, and let it remain forty-eight hours uncorked. It may now be corked up, and the "jar" fitted with a tap or spile, or be put into stone bottles as the Mellissa, or Balm Wine.

This is most excellent in Diseases of the Liver, Ague, or Intermittent Fever, In convalescence following these diseases, it may be used freely.

Compound Ginger Wine.—

℞ Ginger Root (coarsely ground) ..... One pound.
Lemon Peel (crushed) ..... Two ounces.
Sugar (lump) ..... Six pounds.
Water ..... Three gallons.

Gently simmer in a covered vessel for one hour, let it stand until about blood warm, strain, express, add the sugar and two tablespoonfuls of brewer's yeast or barm, mix well, let it stand, in a warm place, same time as the last, after which bottle, and keep in a cool place.

This is a pleasing aromatic stimulant, most excellent in cases of Debility arising from a weak flatulent condition of the stomach. It may be used alone, in half-wineglassfuls, or wineglassfuls, three or four times daily, or mixed with a little hot or cold water.

CONVALESCENT OR DIET DRINKS.

These drinks, like the "Domestic Medicated Wines," are comparatively new introductions, and are not only beneficial during convalescence, but as prophylactics or preventives of disease, they are most valuable, and may be used with incalculable benefit in all seasons of the year.

Two of the great primary causes of disease are, excessive heat and excessive cold, either of which may induce or set up exhaustion at any time. Thousands of lives are annually lost for the want of this knowledge, and as a rational means of supplying it we have introduced the "Domestic Medicated Wines" and "Convalescent or Diet Drinks," which, as ordinary household beverages, far exceed the expensive alcoholic drinks universally presumed to be so beneficial. To prevent exhaustion in health and sustain the system during disease, are both desirable and necessary, but to assume that the strong drinks ordinarily used for these purposes do it is one of the common delusions of the age. To meet the difficulty, we place in the hands of the physician pure and simple nutrient stimulants, which he may, if he will, turn to the advantage of himself and patients.

Convalescent Drink, No. 1.—

Infuse one drachm, or a small teaspoonful, of "No. 1 Composition Powder" in a quart of boiling milk (new), sweeten with lump sugar, mix well, let the powder settle, and drink during the day.

This is highly nutritious and gently stimulating, and may be used in all cases where the blood is thin, and the body weak, and attenuated.

Convalescent Drink, No. 2.—

Infuse four ounces of "No. 1 Composition Powder" in two gallons of boiling water, let it stand, covered, until about blood warm, strain the liquid carefully off upon four pounds of lump sugar and two tablespoonfuls of barm or brewer's yeast, let it stand by the fire, covered, forty-eight hours, after which bottle in a narrow-necked stone jar, keep warm, and let it stand for forty-eight hours more. It may then be corked tightly, and used alone or diluted as ordinary wine and water.

This is a beautiful, nutritious, and highly useful stimulant, and may be used at dinner, in the evening after returning from work, and at any time when the system is exhausted either by labour or from any other cause.

CONVALESCENT DRINK, No. 3.—

℞ Comfrey Root (crushed, dry)	One ounce.
Ginger Root (crushed, dry)	One ounce.
Columbo Root (crushed, dry)	Two ounces.
Boiling Water	Two gallons.

Cut a lemon into thin slices, throw into a pan with the crushed roots, add the boiling water, and gently simmer for one hour, strain off when about blood warm, express, add two pounds of lump sugar and a tablespoonful of barm or brewer's yeast, mix, let it stand forty-eight hours in a covered vessel, by the fire, after which bottle, and let it stand as the last, cork up, keep in a cool place and use as necessary.

This is a gentle nutrient stimulant and tonic, very useful in low Dyspeptic cases, and also in Weakness of the Kidneys and Bladder.

CONVALESCENT DRINK, No. 4.

℞ Poplar Bark (crushed)	Two ounces.
Pinus Canadensis (crushed)	One ounce.
Cinnamon (crushed)	Half ounce.
Boiling Water	Two gallons.
Lump Sugar	Four pounds.
Brewer's Yeast or Barm	Tablespoonful.

Prepare, and bottle for use, as the last.

This is an excellent preparation for the debilitated and aged, particularly where there is much weakness of the loins and kidneys.

CONVALESCENT DRINK, No. 5.—

℞ Dandelion (Young flowers, dry)	Two ounces.
Agrimony (Eupatoria, dry herb)	Three ounces.
Culver's Physic (Black-root, coarse powder)	One ounce.

Infuse in two gallons of boiling water in a covered vessel, strain, express when about blood-warm, add two pounds of lump sugar, and a tablespoonful of brewer's yeast; let it stand by the fire forty-eight hours, after which bottle, as No. 3, cork up, keep in a cool place, and use as necessary.

This is a most excellent preparation, and may be used in convalescent cases supervening upon Disease of Liver, Spleen, Pancreas, Jaundice, or wherever there is a predisposition to these forms of disease.

CONVALESCENT DRINK, No. 6.—

℞ Sanicle (Wood, herb, dry) ..... Four ounces.
Horehound (Garden) ..... Two ounces.
Liquorice Root (coarse powder) ..... One ounce.

Infuse in two gallons of boiling water as the last, add the sugar and yeast, keep in a cool place, prepare as No. 3, bottle, and use as necessary.

This is an excellent preparation, and may be taken with advantage, as a daily drink, in Pulmonary cases, or as a prophylactic or preventive wherever there is weakness of the chest or a predisposition to Consumptive disease.

POWDERS (*Crude*).

COMPOSITION POWDER, No. 1.—

℞ Poplar Bark..... Four ounces.
Bayberry ..... Eight ounces.
Ginger ..... Four ounces.
Cinnamon..... One ounce.
Cayenne ..... Two drachms.

Mix, and pass through a sieve, until the whole are well incorporated,

This is a household remedy, universally employed by the intelligent and thoughtful, but more particularly among the working class, —as a remedy for colds it is unrivalled.

Dose: from a half teaspoonful to a teaspoonful in a half-pint of boiling water, sweetened, at bed-time.

It is prepared as follows, by many temperate families, particularly during the winter, and used instead of any other stimulating beverage:

COMPOSITION CORDIAL.—

℞ Composition Powder ..... One ounce.
Lump Sugar ..... One pound.
Boiling Water ..... One quart.

Pour the latter upon the powder and sugar, mix well, let it stand from twelve to twenty-four hours, strain off the liquid, and bottle.

Dose: a wineglassful to a tumblerful of boiling water, or neat, according to taste.

Among those who conscientiously object to the use of alcohol, this pure nutrient and natural stimulant may be used not only in the family

circle, but at friendly home meetings; and pity it is that its virtues are not universally known.

Many who know its value supply their sick neighbours, and, like good Samaritans, assist to heal their broken spirits and wasted bodies. With them the virtues of "Composition Cordial" are properly estimated, and the poor appreciate the gift, accept it with gratitude, and experience its medicinal and nutrient qualities in the improvement and restoration of their strength.

By thousands of families the powder is used with the meals, more particularly during the cold winter months, instead of tea or coffee.

A small teaspoonful is put into a jug, and well mixed with a quart of boiling milk and water, equal parts. It is then thrown into cups, and sweetened the same as any other beverage. As a gentle stimulant, and a preventive of cold, to the working class, who have to face all weathers in going to and coming from their work, this simple preparation is invaluable.

COMPOSITION POWDER, No. 2.—

℞	Bayberry	Six ounces.
	Ginger	Six ounces.
	Poplar Bark (White)	Three ounces.
	Pinus Canadensis	Two ounces.
	Cayenne	Two drachms.

Mix, and pass through a sieve, as the last.

This preparation is better calculated to meet the wants of the aged. It is prescribed, in fact, with that object, hence it will be found most invaluable wherever there is weakness of the back and general decrepitude. It may be prepared in all respects as the last.

DIAPHORETIC POWDER.—

℞	Camphor	Two drachms.
	Ipecac	One drachm.
	Bitartrate of Potass	One ounce.
	Opium	Half drachm.

Mix the powders until they are completely incorporated. Dose: from five to ten grains, at bed-time, followed with an infusion of weak Composition Tea.

This is most excellent in all cases of severe pain, and where a sudorific is necessary.

It is diaphoretic, sudorific, and anodyne, promotes perspiration without exciting the system. It is particularly indicated in Acute

Rheumatism, Synovitis, Restlessness, and great Nervous excitement. It may be prescribed in severe cases every four or six hours, during the continuance of the exacerbations.

CATHARTIC POWDER.—

℞ Jalap ..... Half pound.
Senna ..... One pound.
Ginger ..... Two ounces.

Mix until the whole are well incorporated. Dose: from a half teaspoonful to a small teaspoonful, in a teacupful of hot water, sweetened.

This is an excellent cathartic, and if given fasting, or an hour before breakfast, acts readily and efficiently. Given after a meal it is equally efficacious, but slower in its action.

EMETIC POWDER, No. 1.—

℞ Lobelia Inflata (herb and seed mixed) ..... One ounce.
Ipecac. ..... One ounce.
Blood-root ..... Half ounce.

Mix until the whole are well incorporated. Dose: a half teaspoonful, in Chamomile, Boneset, or weak Composition Tea, every twenty minutes, until it operates. If the first dose acts within ten minutes give another, and, if necessary, the third or fourth.

This is an excellent medicine, and may be administered in all cases where an emetic is necessary.

EMETIC POWDER, No. 2.—

℞ Boneset ..... One ounce.
Lobelia (herb and seed mixed)..... One ounce.
Cayenne..... One drachm.

Mix until the whole are well incorporated. Dose: two drachms, in a pint and a half of hot water, sweetened with molasses, in teacupful doses, every ten minutes, until the whole is taken.

This is an efficient remedy in all cases where an emetic is indicated. It is most effective in breaking up and removing old morbid accumulations, and in calling up a healthy reaction.

COMPOUND POWDER OF MANDRAKE.—

℞ Mandrake (American) ..... One ounce.
Ginger ..... One ounce.
Bitartrate of Potass..... One ounce

Mix until the whole are well incorporated. Dose: One teaspoonful daily, in a half teacupful of boiling water, sweetened.

This is a most excellent preparation, and may be used in combination with other remedies, or alone, for Constipation from Sluggish Liver, Jaundice, Mesenteric Disease, Scrofula, Ulcerated Wounds, &c., &c.

DYSPEPTIC POWDER.—

℞ Gentian ..... Half drachm.
Valerian ..... Half drachm.
Bitartrâte of Potass ..... Half drachm.
Cayenne ..... Twenty grains.

Mix until the whole are well incorporated, divide into twenty powders, and take one three times a day, immediately after meals, in a little cold water.

This is an excellent remedy for Dyspepsia accompanied with Water-brash or Heart-burn, and may be taken alone or with Composition Tea, as most convenient.

STOMACH POWDER, No. 1.—

℞ Balmony ..... One ounce.
Golden Seal ..... One ounce.
Liquorice Root ..... Half ounce.
Cayenne ..... Thirty grains.

Mix until the powders are well incorporated. Infuse one ounce in a pint of boiling water; when cool strain and bottle. Dose: a wineglassful three times a day.

An excellent medicine to promote appetite, strengthen the stomach, and assist digestion.

STOMACH POWDER, No. 2.—

℞ Gentian ..... One ounce.
Valerian ..... One ounce.
Black-root (Culver's Physic) ..... Half ounce.
Dandelion (roasted powder) ..... Two ounces.
Cayenne ..... One drachm.

Mix until the whole are well incorporated. Infuse one ounce in a pint of boiling water, and when cool strain and bottle for use. Dose: a wineglassful three times a day.

This is a most excellent medicine, and may be used with advantage in all cases of Dyspepsia, more particularly when complicated with Disease of the Liver, Spleen, or Pancreas.

ALTERATIVE OR ANTI-SCORBUTIC POWDER.—

℞ Queen's Delight	One ounce.
Burdock	Two ounces.
Mandrake	Half ounce.
Ginger	Half ounce.

Mix until the whole are well incorporated. Infuse one ounce in a pint of boiling water, mix well; when cool, strain and bottle for use. Dose: one tablespoonful four times a day.

This medicine is particularly indicated in Cutaneous Disease, Scrofula, Secondary and Tertiary Syphilis, Old Sores, Eruptions, Irritation of the Skin, &c.

DIURETIC POWDER.—

℞ Buchu	One ounce.
Queen of the Meadow	One ounce.
Uva Ursi	Half ounce.
Parsley Root	One ounce.
Ginger	Half ounce.

Mix until the whole are well incorporated. Infuse two ounces in a quart of boiling water, mix well; when cool, strain and bottle for use. Dose: a wineglassful four times a day.

This is very useful in Obstruction of the Urine, and Weakness of the Kidneys and Bladder.

GRAVEL POWDER.—

℞ Hemp Agrimony (root of)	Two ounces.
Queen of the Meadow (root of)	One ounce.
Marshmallow (root of)	One ounce.
Ginger	Half ounce.

Mix until the whole are well incorporated. Infuse two ounces in a quart of boiling water, mix well, and when cool strain and bottle for use. Dose: a wineglassful four times a day.

This is a most efficient medicine in cases of Gravel. It breaks up and disunites all calcareous deposit in the kidney, ureters, urethra, and bladder, and removes it by micturition. It is a sure preventive wherever the predisposition exists, but when the stone is fairly formed, particularly if of oxylate of lime, little more can be done than to alleviate symptoms and prevent its further progress.

ANTISPASMODIC POWDER.—

℞	Burdock Seed	One ounce.
	Scullcap	One ounce.
	Caraway	One ounce.
	Lobelia (herb)	One ounce.
	Ginger	One ounce.
	Golden Seal	One ounce.
	Cayenne	One drachm.

Mix until the whole are well incorporated. Dose: a teaspoonful in a tumblerful or half-pint of boiling water, sweetened, at bed-time; also during the day, if necessary.

This is an excellent remedy in Spasm, Cramp of the Stomach, Bowels, and Limbs; Neuralgia or Tic Doloreux, Rheumatic Pains, particularly of the head and face.

HEPATIC OR CURATIVE POWDER.—

℞	Golden Seal	One ounce.
	Black-root (Culver's Physic)	Two ounces.
	Dandelion Root	One ounce.
	Mandrake (American)	Half ounce.
	Burdock	One ounce.
	Ginger	Half ounce.

Mix until the whole are well incorporated, and infuse one ounce in a pint of boiling water; when cool, strain and bottle for use. Dose: a tablespoonful three times a day.

This is an excellent remedy for Chronic Constipation of the Bowels, Mesenteric Disease, and Disease of the Liver, Pancreas, and Spleen.

NOTE.—Ulcerated conditions of the Liver, and Mesentery, may be known by the dark, yellow, and mottled skin, griping pains, relax and offensive condition of the motions.

In all such cases the powder should be taken in small doses, as follows:—

Infuse about ten grains, or a quarter of a teaspoonful, in a wineglassful of hot water, and take twice or three times a day.

SPICE BITTERS.—

℞	Bayberry	One ounce.
	Golden Seal	Half ounce.
	Prickly Ash	Half ounce.
	Balmony	Half ounce.
	Cinnamon	Half ounce.
	Cloves	Two drachms.
	Cayenne	Two drachms.
	White Sugar (in fine powder)	Half pound

Mix until the whole are well incorporated. Dose: one teaspoonful, well mixed in a small teacupful of boiling or cold water, three times a day, and at bed-time.

This is highly useful in all the Irregularities to which females are liable, and of great value in Dyspepsia, Loss of Appetite, Nervous Debility, &c.

Corrective Powder.—

℞ Poplar Bark ..... Two ounces.
Bayberry Powder ..... One ounce.
Black Cohosh ..... One ounce.
Golden Seal ..... Half ounce.
Anise ..... Half ounce.
Cinnamon ..... Half ounce.

Mix until the whole are well incorporated. Dose: from a half teaspoonful to a teaspoonful, in a small teacupful of boiling water, sweetened with loaf sugar, three times a day, and at bed-time.

This is indicated in Amenorrhœa, or obstruction of the menses. It is well known to many females, particularly among the working class, and highly esteemed as a most valuable medicine.

Restorative Powder.—

℞ Balmony ..... Half ounce.
White Pond Lily ..... Half ounce.
Bistort Root ..... One ounce.
Cinnamon ..... Half ounce.
Tormentil ..... One ounce.
Cayenne ..... Half drachm.

Mix until the whole are well incorporated. Dose: same as the last.

Highly valuable in excessive Menstrual Discharges, Menorrhagia, Hæmorrhage from the Uterus, Flux, Leucorrhœa or Whites, and a Lax or Debilitated condition of the system.

Pile Powder.—

℞ Cranesbill (root of) ..... Two ounces.
English Rhubarb (root of) ..... One ounce.
Poplar Bark ..... Half ounce.
Bistort (root of) ..... One ounce.
Marshmallow (root of) ..... One ounce.
Ginger ..... Half ounce.

Mix until the whole are well incorporated. Dose: one teaspoonful three or four times a day in a teacupful of hot water, sweetened.

This is a most excellent remedy, and may be used with great advantage, whether the piles are *external*, *internal*, or *bleeding*.

PULMONARY OR COUGH POWDER.—

℞ Marshmallow (root of)	Two ounces.
Polypody	One ounce.
Liquorice Root	One ounce.
Anise	One ounce.
Lobelia (herb)	Half ounce.
Scullcap	Half ounce.
Pleurisy Root	Half ounce.
Skunk Cabbage	One ounce.

Mix until the whole are well incorporated. Dose: one teaspoonful in a small teacupful of boiling water, sweetened, three times a day.

In cases of extreme Debility it may be taken in new milk, boiled and sweetened, instead of water.

This is very useful in old Coughs, Debility, or Weakness of the Lungs, Bronchial Disease, and Consumption. It may be used as directed, or combined with Horehound, Coltsfoot, Sanicle, Hyssop, Ground Ivy, or any of the herbal preparations indicated in Pulmonary Disease.

ANTI-CHOLERA POWDER.—

℞ Angelica (root of)	One ounce.
Cranesbill	Two ounces.
Bistort	One ounce.
Sweet-flag (root of)	Two ounces.
Marshmallow (root of)	One ounce.
Cinnamon	One ounce.
Cayenne	Two drachms.

Mix until the whole are well incorporated. Dose: see "Cholera Maligna," pages 618 and 619.

NEUTRALIZING POWDER (BEACH'S MIXTURE) —

℞ Turkey Rhubarb	Half drachm.
Bicarbonate of Potass	Half drachm.
Peppermint (fine powder)	Half drachm.
Boiling Water	Half pint.

Infuse in a covered vessel and, when sufficiently cool, strain, sweeten with lump sugar, and add a small wineglassful of the best pale brandy. Dose: one or two tablespoonfuls every quarter or half hour, or one or two hours, according to the symptoms. For children, in proportion to age.

"This is one of the most valuable preparations known for Cholera Morbus, Cholera Infantum (or summer complaint of children), Diarrhœa, Dysentery, &c. Its operation and effects seem to render it an almost infallible remedy."—*Dr. Beach.* (See English Cholera, pages 604 and 605.)

TEA OR CONVALESCENT POWDER, No. 1.—

℞	Queen of the Meadow (root of)	One ounce.
	Burnet (Pimpinella Major, root of)	Two ounces.
	Avens (Geum Urbanum, root of)	Two ounces.
	Ginger	Two drachms.
	Fine White Sugar	Twelve ounces.

Mix until the whole are well incorporated, and use as follows: Infuse one tablespoonful in a pint of boiling milk, let the powder settle, and drink cold throughout the day. Prepared in the same quantity, with equal parts of boiling milk and water, it is most excellent as a beverage for invalids, used with the meals, instead of tea or coffee. A teaspoonful of the "powder," taken at bed-time, in a teacupful of Balm Wine, mulled, or hot, is very beneficial in all cases of Debility and Lowness of Spirits.

TEA OR CONVALESCENT POWDER, No. 2.—

℞	Burnet (Pimpinella Major, root of)	Two ounces.
	Bayberry	Two ounces.
	Cinnamon	Two drachms.
	Ginger	One ounce.
	Fine White Sugar	Twelve ounces.

Mix until the whole are well incorporated.

This is an excellent preparation for Dyspeptics, Invalids, Delicate Females, and for patients during convalescence. It may be prepared and used in the same manner as "Convalescent Powder, No. 1."

ENEMATA, OR INJECTIONS (*Clysters*).

The use of Injections in the treatment of disease is of very ancient date; and when we reflect upon the position and character of the intestines, we can scarcely fail to see there are cases in which we cannot prudently do without them; such as in Putrid Fevers, Constipation and Inflammation of the Bowels, extreme Debility, &c., and where the stomach can neither take food nor retain it when taken. Of the necessity of removing obstructive fæcal accumulations there cannot be two opinions; nor of relieving the bowels of whatever has a tendency to increase putrefaction in Malignant and Low Fevers; nor of nourishing and sustaining the system in cases where the stomach refuses to act. To presume to reason upon their usefulness under such circumstances would be absolute folly, and yet there are professors who condemn them; but we shall not be surprised at this when we remember the present wretched condition of medicine, and the darkness which obtains throughout the numerous sects and parties who practice it.

ULMUS OR SLIPPERY ELM INJECTION.—

℞ Slippery Elm ..... One drachm.
Sugar ..... One ounce.

Mix until well incorporated, after which add a half-pint of warm milk and water and an ounce of olive oil, gently stirring the whole.

This injection is useful in the majority of cases, and it is rare that any other is required. In many cases, however, the "Digestive Food" answers every purpose, and as it is generally at hand there is no time lost in its preparation, all that is required is to mix a tablespoonful in a half-pint of *warm Water*, *Milk and Water*, or *Milk*, according to the indications of each particular case. Water answers every purpose where the object is simply to remove obstruction; but where nutrition is required, or the action of any particular agent, it is necessary to use milk, beef tea, thin gruel, rice milk, and such preparations as the case appears to demand.

STIMULATING INJECTION.—

℞ Antispasmodic Tincture..... One drachm.
Digestive Food ..... Two drachms.
Mix in a half-pint of warm Water, and sweeten with Molasses.

This injection is indicated in all cases of Fever of a low type, in Colic pains, and Spasmodic attacks of the bowels.

ANTHELMINTIC INJECTION.—

℞ Aloes (powder) ..... Half drachm.
Common Salt ..... One drachm.
Slippery Elm (fine powder) ..... Half drachm.

Mix until the whole are well incorporated, after which add a half-pint of warm Water, sweeten with Molasses, and stir briskly.

This is a most useful injection in cases of Seat Worms or Ascarides, or where the colon or lower bowel is impacted with Entozoa of any kind.

COMMON SOAP INJECTION.—

This is prepared by simply making a strong lather of Soap and Water; and where the object is simply to act on the lower bowel it may be used with advantage.

COMPOUND INJECTION POWDER.—

℞ Ulmus Fulva (Slippery Elm)..... Half ounce.
Black-root (Culver's Physic)..... Half ounce.
Ginger ..... Two drachms.
Fine Sugar ..... Half Pound.

Mix until the whole are well incorporated. Prepare as follows: one tablespoonful of the powder to a half-pint of warm water.

This is a useful injection in all cases where the system is generally sluggish, and where it is necessary to act upon the liver.

POULTICES.

These preparations are exceedingly useful, and are indicated in a variety of cases. The following are sufficient for every purpose:—

SLIPPERY ELM POULTICE.—

℞ Slippery Elm (in powder) ..... Sufficient.

Mix with hot water or infusion of wormwood or other herb to form into a proper consistency, spread smoothly upon soft cotton cloth, and apply over the part affected.

This poultice is most excellent in suppurative Abscess and old Wounds of every kind. In Inflammation, whether phlegmonous or simple, it may be applied immediately over the part affected; in abscesses and old wounds it should be placed between cloths.

LINSEED POULTICE.—

℞ Linseed (in powder)..... Sufficient.

Prepare as the last.

This is the common poultice of the hospitals, and in the absence of slippery elm it may be made to supply its place. It is used in almost all cases, either simple or compound, as occasion requires.

ANTISEPTIC POULTICE.—

℞ Slippery Elm (in powder) ..... Sufficient.
Vegetable Charcoal (in fine powder)..... Sufficient.

Mix equal parts with warm water or an infusion of wormwood, and apply immediately over the part.

In old offensive Gangrenous Wounds this poultice is one of the best that can be employed. In the absence of slippery elm linseed meal may be used.

HEMLOCK POULTICE.—

℞ Hemlock (Conium Maculatum, herb, green) ..... Sufficient.
Slippery Elm ..... Sufficient.

Boil the herb, strip off the leaf or soft part, chop soft, and mix sufficient Slippery Elm with as much of the decoction as is necessary to give it a consistency.

This poultice is very useful in swollen or enlarged glands, whether of the neck or any other part. In cancers or tumours, inflammation of the breast, orchitis, and indeed for glandular irritation or induration of any kind.

FERMENTATIVE OR YEAST POULTICE.—

℞ Slippery Elm ..... Sufficient.
Mix with brewer's yeast or barm, and new milk.

This is a most valuable poultice in all cases where it is desirable to hasten suppuration, or arrest the tendency to gangrene.

COMPOUND MUSTARD POULTICE.—

℞ Slippery Elm ..... Sufficient.
Mustard ..... A fourth part.
Mix with water, and apply as hot as possible between layers of soft cotton.

This is one of the best forms of poultice for Pleurisy, Inflammation of the Bowels, Lumbago, or indeed for any kind of acute inflammatory attack.

COMPOUND BRAN POULTICE.—

℞ Wheat Bran ..... } Equal parts.
Slippery Elm ..... }
Mix with hot vinegar to a proper consistency, and apply to the part affected.

This is most excellent in severe rheumatic and gouty affections, particularly of the joints, and in Synovitis or White Swelling.

COMFREY POULTICE.—

℞ Comfrey Root (in powder) ..... Sufficient.
Mix with boiling water to a proper consistency, and apply immediately to the part affected, or between cloths.

This is a most excellent poultice in cases of Hernia or Rupture, applied immediately after the protrusion is returned. If changed as

necessary, kept in position, and rest enforced, it assists most readily to repair the break or loss of continuity. It was known by the synonym or name of "Knit-bone" by our Saxon forefathers, from the fact of its power of healing or uniting broken bones. Our modern scientific and over-wise modern physicians smile at this simplicity, but if they were to reflect, they might see at once that a broken bone depends for its re-union upon the integrity of the periosteum. It is because of its power in subduing the inflammatory condition of this membrane that the bone and broken part are so readily repaired.

HERBAL POULTICES.—

These are prepared with whatever herb or herbs the medical attendant may consider best fitted to meet the indications of disease. The leaves only should be used, and these green if possible; in which case they must be bruised in a mortar, and applied alone or mixed with Slippery Elm and boiling water sufficient to give the mass consistency.

CONCENTRATED POWDERS.

These preparations are highly useful in chronic disease, when it becomes necessary to completely change the character of the blood in order to remove effete or worn out matter, and supply its place with new. In all such cases the process must necessarily be slow, and whilst every attention is being paid to hygiene, the system, acted upon through the food, combined or united with these medicines, gradually changes its condition. In certain cases the transition from disease to health takes place all but imperceptibly, with very little medicine, from the fact that the organ or part more immediately affected having been relieved of the morbid accumulation, nature comes to the rescue and completes the work.

COMPOUND POWDER OF LEPTANDRIN.—

℞	Leptandrin	One drachm.
	Podophyllin	Twenty grains.
	Ginger	Half drachm.
	Hydrastin	Half drachm.

Triturate and mix well. Dose: From two to three grains in a little roast apple three times a day immediately after meals.

This is most excellent in Disease of the Liver, Pancreas and Spleen, Mesenteric Disease, Jaundice, and Constipation of the Bowels.

COMPOUND POWDER OF STILLINGIN.—

℞ Stillingin	One drachm.
Phytolacin	Half drachm.
Ginger	One drachm.
Podophyllin	Twenty grains.

Triturate and mix well. Dose: from three to five grains night and morning in roasted apple or preserve.

This is an excellent remedy in Cutaneous Disease, Scald Head, Eczema, Secondary and Tertiary Syphilis, &c.

ASCLEPIN.—

The active principle of the *Asclepias Tuberosa* (Pleurisy root). Dose: from two to five grains. Properties: Alterative, Antispasmodic, Expectorant, and Carminative.

Most excellent in Inflammatory attacks of the Lungs, Pleurisy, Catarrh, Asthma, Hooping Cough, and Bronchitis. It should be taken with hyssop or ground ivy tea.

CAULOPHYLLIN.—

The active principle of the *Caulophyllum Thalictroides* (Blue Cohosh). Dose: from one to five grains. Properties: Emmenagogue, Tonic, Alterative, Diuretic, and Parturient.

Valuable in Parturition, Amenorrhœa, Dysmenorrhœa, Rheumatism, and Gastrodynia, particularly during gestation.

CHELONIN.—

The active principle of the *Chelone Glabra* (Balmony). Dose: from one to three grains. Properties: Tonic and Anthelmintic.

As a tonic, the Chelonin is unsurpassed by any known remedy. It is highly useful in Dyspepsia, Loss of Appetite, Torpidity of the Liver, and diseases of Debility, used alone or combined with other remedies. Its properties as a vermifuge are confined to the *Lumbricoides* or round worm, and Ascarides or seat worm.

CIMICIFUGIN OR MACROTIN.—

The active principle of the *Cimicifuga Racemosa* (Black Cohosh). Dose: from one to three grains. Properties: Antispasmodic, Expectorant, Emmenagogue, Parturient, and Nervine.

Most excellent in Chorea, Epilepsy, Amenorrhœa, Dysmenorrhœa, Spasm, Hysteria, and Parturition.

EUONYMIN.—

The active principle of the *Euonymus Atropurpureus* (Wahoo). Dose: from one to three grains. Properties: Alterative, Tonic, Laxative, Expectorant, and Diuretic.

Highly useful in obstinate Constipation, Loss of Appetite, Cutaneous Disease, Nervous Irritation, Difficulty of Breathing, Tightness of Chest, Sluggishness of the Liver, Fever, Inflammation, Pleurisy, Obstructed Perspiration, &c.

EUPATORIN (PERFO.).—

The active principle of the *Eupatorium Perfoliatum* (Boneset). Dose: as a Tonic and Alterative, from three to five grains; as a Diaphoretic and Febrifuge, from one to three grains. Highly useful in Fever, Inflammation, and every form of acute disease.

GERANIN.—

The active principle of the *Geranium Maculatum* (Cranesbill). Dose: from two to five grains. Properties: Astringent, Styptic, and Antiseptic.

Highly useful in Leucorrhœa, Menorrhagia, Hæmaturia, Gleet, Dysentery, Diabetes, Diarrhœa, and Cholera Morbus.

HYDRASTIN.—

The active principle of the *Hydrastis Canadensis* (Golden Seal). Dose: from three to five grains. Properties: Alterative, Laxative, Antiseptic, Tonic, and Diuretic.

A most excellent remedy in diseases of an asthenic or low type; hence its value in the convalescent stages of Typhus, Hepatitis, Enteritis, Dysentery, Gastritis, Ulceration of the Bowels, Dyspepsia, Torpidity of the Liver, &c. It is also highly useful in all Mucous Discharges, and as a Tonic it is exceedingly beneficial. Applied externally to offensive Gangrenous Wounds it acts as an Antiseptic, and corrects their acrimony and fetor. Combined with *Geranin*, *Leptandrin*, *Podophyllin*, *Hamamelin*, and other remedies, there is scarcely a disease that it may not be employed with advantage in.

IRISIN.—

The active principle of the *Iris Versicolor* (Blue Flag). Dose: as a Cathartic, six grains; as an Alterative, three grains. Properties: Alterative, Cathartic, Sialagogue, Diuretic, and Antisyphilitic.

Highly useful in Scrofulous and Syphilitic Disease, Glandular Enlargements, Eruptions upon the Skin, Rheumatism, and Leucorrhœa.

JALAPIN.—

The active principle of the *Ipomæ Jalapa* (Jalap). Dose : from two to five grains. Properties : Hydragogue and Cathartic.

Highly useful in Ascites, Anasarca, Pericarditis, and all dropsical effusions. It is very effectual in cases of this kind if given in quarter-grain or half-grain doses every three or four hours until active catharsis is produced. It should not be prescribed in Inflammation of the Stomach and Bowels.

JUGLANDIN.—

The active principle of the *Juglans Cinerea* (Butternut). Dose : from four to six grains. As an Emetic and Cathartic, from ten to fifteen grains. Properties : Alterative, Tonic, Cholagogue, Laxative, Diuretic, Emetic, and Cathartic.

This is a most valuable remedy where it is advisable to act without irritating the stomach or intestines ; hence its utility in Remittent, Intermittent, Typhoid, and Enteric Fever. It acts as a stimulant and tonic in Cutaneous Diseases, and is highly valuable in Eczema, Herpes, Lichen, Acne, Prurigo, and almost all forms of Skin Disease.

BABTISIN.—

The active principle of the *Baptisia Tinctoria* (Wild Indigo). Dose : from one to three grains. Properties : Tonic, Emetic, Stimulant, Alterative, Antiseptic, and Emmenagogue.

It is an excellent remedy in Erysipelas, Scrofula, Cutaneous Disease, and for old Ulcers, Sore Nipples, Sore Eyes, Syphilitic Disease, Gangrenous and offensive Wounds, &c.

It is contra-indicated during gestation, as its continued use induces abortion.

BAROSMIN.—

The active principles of the *Barosma Crenata* (Buchu). Dose : from two to four grains. Properties : Diuretic, Antispasmodic, Stimulant, and Alterative.

It is highly valuable in Irritable Urethra, Inflammation of the

Bladder, Chronic Rheumatism, and Inflamed Mucous Surfaces generally, Leucorrhœa, Gonorrhœa, Ulceration of the Womb, Prostrate Gland, &c.

CORDYALIN.—

The active principle of the *Cordyalis Formosa* (Turkey Pea). Dose: from one to three grains. Properties: Alterative, Antisyphilitic, Diuretic, Tonic, and Stimulant.

Most excellent in Scrofula, Syphilis, Leucorrhœa, Gleet, Gravel, Dropsy, and all Diseases of the Skin.

CYPRIPEDIN.—

The active principle of the *Cypripedium Pubescens* (Lady's Slipper). Dose: from two to five grains. Properties: Antispasmodic, Nervine, Tonic, and Stimulant.

Excellent in Hysteria, Chorea, Epilepsy, Neuralgia, Head-ache, and Nervous Debility.

This is a most excellent medicine in all cases where a nervine is indicated, more especially in diseases of children. It is notorious that opium is uncertain in its action, and in some cases highly dangerous, hence it seldom affects two patients alike, for while some can bear it without any great disturbance, others, from some peculiar idiosyncrasy, cannot take it at all, and are so exceedingly sensitive, that the smallest quantity produces extreme distress.

EUPATOIDIN.—

The active principle of the *Eupatorium Ageratum* (White Sanicle). Dose: from one to three grains. Properties: Expectorant, Antispasmodic, Diaphoretic, Pulmonic, and Aromatic.

This is a most valuable remedy in Inflammation of the Lungs, Pleurisy, and irritability of the nervous-system. It produces freedom of expectoration, induces gentle diaphoresis, and relieves tightness of the chest or difficulty of breathing.

EUPATORIN (PERPU.).—

The active principle of the *Eupatorium Purpureum* (Queen of the Meadow). Dose: from three to five grains. Properties: Diuretic, Stimulant, Tonic, and Astringent.

This medicine is unsurpassed by any known remedy in Obstruction of the Urine, whether from Calculus, Disease of the Kidneys, Bladder, or general Debility of the parts. It is equally good in Hæmatemesis, Hæmoptysis, Strangury, Hæmaturia, Dysentery, and Dropsy.

FRASERIN.

The active principle of the *Frasera Carolinensis* (American Columbo). Dose: from three to five grains. Properties: Tonic, Stimulant, and Febrifuge.

Excellent in cases of extreme Dyspeptic Debility, Jaundice, Bilious Disease, Dysentery, and in the convalescent stages of Fever.

GILLENIN.—

The active principle of the *Gillenia Trifoliata* (Indian Physic). Dose: as a Tonic, from three to five grains. Properties: Emetic, Sudorific, Expectorant, Cathartic, and Tonic.

Excellent in obstinate Constipation, Gastrodynia, Amenorrhœa, Intermittent Fever, and Rheumatism.

GOSSYPIIN.—

The active principle of the *Gossypium Herbaceum* (Cotton Plant). Dose: five grains. Properties: Parturient, Diuretic, and Emmenagogue.

Highly prized as an Emmenagogue, and very valuable in Dysmenorrhœa and in promoting Parturition.

HAMAMELIN.—

The active principle of the *Hamamelis Virginica* (Witch Hazel). Dose: from three to five grains. Properties: Tonic, Sedative, and Astringent.

Most excellent in all diseases dependent upon an unhealthy condition of the mucous membrane, whether of the vagina, uterus, intestinal canal, urethra, ureter, or bladder; also in Hæmoptisis, Hæmatemesis, Hæmorrhoids, Dysentery, Diarrhœa, Ulceration of the Bowels, Leucorrhœa, and Gleet.

LEPTANDRIN.—

The active principle of the *Leptandria Virginica* (Black Root, Culver's Physic). Dose: from one to three or four grains. Properties: Alterative, Laxative, Tonic, and Cholotic or Hepatic.

Highly prized in Chronic Disease of the Liver, Jaundice, Diarrhœa, Cholera Infantum, Mesenteric Disease, Typhoid Fever, Ulceration of the Bowels, and in all cases where the liver, pancreas, and spleen are affected.

LOBELIN.—

The active principle of the *Lobelia Inflata*. Dose: from a half grain to two grains. Properties: Emetic, Nauseant, Relaxant, Expectorant, Sedative, and Antispasmodic.

Highly prized in almost every form of Acute Disease, particularly where the stomach is at fault or an emetic is indicated.

LUPULIN.

The active principle of the *Humulus Lupulus* (Hop). Dose: from one to three grains. Properties: Nervine, Anodyne, Sudorific, Astringent, and Tonic.

Excellent in Hysteria, Delirium, Nervous Dyspepsia, Tremors, &c.

LYCOPIN.—

The active principle of the *Lycopus Virginicus* (Sweet Bugle). Dose: from two to five grains. Properties: Astringent, Tonic, Sedative, and Anodyne.

Most excellent in Hæmoptisis, Incipient Phthisis, Dysentery, Gastric Debility, Loss of Appetite, Chronic Diarrhœa, Palpitation of the Heart, and Leucorrhœa.

MENISPERMIN.—

The active principle of the *Menispermum Canadense* (Yellow Parilla). Dose: from two to five grains. Properties: Alterative, Tonic, Laxative, Diuretic, and Stimulant.

A most excellent remedy in Strumous and Scrofulous Disease, Chronic Rheumatism, Chlorosis, Eczema Mercuriale, Secondary and Tertiary Syphilis, Herpes, Erysipelas, and all forms of Glandular and Cutaneous Disease.

MYRICIN.

The active principle of the *Myrica Cerifera* (Bayberry). Dose: from two to five grains. Properties: Astringent, Alterative, Stimulant, and Antispasmodic.

Most invaluable in Dysentery, Chronic Diarrhœa, Scrofula, Sore

Throat, Apthous Affections, and Ulceration of the Stomach and Intestines.

PHYTOLACCIN.—

The active principle of the *Phytolacca Decandra* (Poke root). Dose: from one to three grains. Properties: Alterative, Emetic, Cathartic, and Sedative.

Highly useful in Secondary, Tertiary, and Mercurio Syphilitic Affections.

PODOPHYLLIN.—

The active principle of the *Podophyllum Peltatum* (American Mandrake). Dose: as an Alterative, from one-eighth to half a grain; as a Cathartic, from one and a half to two grains; and as an Emeto-Cathartic, from two to three or four grains. Properties: Emetic, Cathartic, Alterative, Hydragogue, Emmenagogue, Cholagogue, and Anthelmintic.

This remedy is most efficient in Disease of the Liver, Spleen, Mesenteric, Strumous, Glandular Affections, Diseases of the Skin, Fever, Dysentery, Syphilis, Jaundice, Bilious Disease, &c., &c.

Combined with other remedies, it meets the indication of the disease for which it is prescribed readily, and with certainty.

POPULIN.—

The active principle of the *Populus Tremuloides* (White Poplar). Dose: from three to eight grains. Properties: Alterative, Tonic, Diuretic, Stomachic, Vermifuge, and Diaphoretic.

Most excellent in General Debility, and in all cases where the pathological evidence of the disease is doubtful in its character.

PRUNIN.

The active principle of the *Prunus Virginicus* (Wild Cherry Bark). Dose: as a Tonic, from three to four grains; as a Sedative, from five to eight grains. Properties: Stimulant, Tonic, Expectorant, and Sedative.

Highly beneficial in Nervous Irritability, Hectic Fever, Colliquative Diarrhœa, Pleurisy, Pneumonia, Consumption, Cough, Dyspepsia, Palpitation, &c.

RHUSIN.—

The active principle of the *Rhus Glabrum* (Sumach). Dose: from one to three grains. Properties: Astringent, Antiseptic, and Tonic.

Highly valuable in Diarrhœa, Dysentery, Apthous Affections, Leucorrhœa, Gleet, and Mucous Discharges generally. It is also excellent in Dysentery and Diarrhœa following Typhoid Fever.

SANGUINARIN.—

The active principle of the *Sanguinaria Canadensis* (Blood root). Dose: from one-fourth of a grain to five grains, the latter acting as an Emeto-Cathartic. Properties: Emetic, Sedative, Febrifuge, Stimulant, Tonic, Alterative, Expectorant, Laxative, and Emmenagogue.

A most efficient remedy in Bronchitis, Laryngitis, Hooping Cough, Malignant or Putrid Sore Throat, Rheumatism, Jaundice, Gastrodynia, and Inflamed Mucous Surfaces generally. It is also most valuable if applied externally to Inflamed and Ulcerated Wounds, Conjunctivitis, Iritis, Opthalmia, &c.

SCUTELLARIN.—

The active principle of the *Scutellaria Lateriflora* (Scullcap). Dose: from two to five grains. Properties: Nervine, Tonic, Antispasmodic, slightly Diuretic, and Diaphoretic.

Most excellent in Chorea, Delirium, Convulsions, Tremors, Hysteria, Neuralgia, and all forms of Nervous Disease.

SENECIN.—

The active principle of the *Senecio Gracilis* (Life root). Dose: from two to five grains. Properties: Febrifuge, Emmenagogue, Expectorant, Pectoral, Alterative, and Tonic.

Excellent in Chlorosis, Amenorrhœa, Dysmenorrhœa, and Diseases peculiar to Females; also in general Debility. It is commonly known in America by the name of Female Regulator.

SMILACIN.—

The active principle of the *Smilax Officinalis* (Sarsaparilla). Dose: from three to five grains. Properties: Alterative, Resolvent, and Detergent.

Highly useful in Secondary and Tertiary Syphilis, Scrofula, old Ulcers, Caries, &c. Combined with *Irisin*, *Stillingin*, *Podophyllin*, or *Leptandrin*, according to the treatment indicated, it is in all respects an invaluable adjunct.

TRILLIIN.—

The active principle of the *Trillium Pendulum* (Beth root). Dose: from three to five grains. Properties: Astringent, Styptic, Alterative, Tonic, Diaphoretic, Expectorant, Antiseptic, and Emmenagogue.

Invaluable in Hæmoptisis, Hæmaturia, Hæmatemesis, Leucorrhœa, Cancrum Oris, Chronic Vaginitis, Putrid Fever, &c.

VERBENIN.—

The active principle of the *Verbena Hastata* (Simplers Joy). Dose: from three to five grains. Properties: Emetic, Tonic, Expectorant, Emmenagogue, Sudorific, and Alterative.

Excellent in Intermittent and Remittent Fever, Cold, Obstruction of the Menses, Scrofula, Bronchial and Pulmonary Affections.

VIBURNIN.—

The active principle of the *Viburnum Opulis* (High Cranberry, Cramp Bark). Dose: from three to six grains. Properties: Antiperiodic, Expectorant, Antispasmodic, Alterative, and Tonic.

In Pneumonia, Diarrhœa, Dysentery, Dysmenorrhœa, Cholera Morbus, Colic, &c., the *Viburnin* is invaluable.

XANTHOXYLIN.—

The active principle of the *Xanthoxylum Fraxineum* (Prickly Ash). Dose: from three to five grains. Properties: Alterative, Tonic, Sialagogue, and Stimulant.

Highly valuable in Rheumatism, Chronic Diarrhœa, Ulceration of the Stomach and Bowels, Gleet, Leucorrhœa, Cutaneous Diseases, and general Debility.

It will be quite superfluous to add a word in favour of the active principles; their general acceptance and use, more or less, among all medical professors throughout America, and to whomever they are known in Europe, is the best evidence we can give of their utility. In clinical or bed-side practice they have great advantages over all others, particularly in cases where crude remedies are objectionable.

PILLS.

These are simply combinations of medicinal substances formed into small round masses, to the advantage both of patient and physician.

APERIENT, OR ANTIBILIOUS PILL —

℞ Aloes (best Socotrine) ..... One ounce.
Gamboge ..... Two drachms.
Mandrake (American) ..... Two drachms.
Cayenne ..... Four drachms.
Oil of Peppermint ..... Twenty drops.

Mix with sufficient gum acacia mucilage, and form into five grain pills. Dose: two at bed-time, or less or more as necessary.

Excellent in Constipation, Bilious Head-ache, &c., &c.

RHEUMATIC, RENAL, LEUCORRHŒAL, AND DIURETIC PILL.—

℞ Solidified Copaiba ..... One ounce.
Castile Soap (in powder) ..... Two drachms.
Oil of Juniper ..... Twenty drops.
Liquorice (Extract) ..... One drachm.
Parsley Root ..... One drachm or more.

Well work up the whole in a mortar, and form into five grain pills. Dose: from two to six daily.

Most invaluable in Rheumatism, Leucorrhœa, Obstruction of the Urine, Gonorrhœa, Gleet, &c.

DIGESTIVE, OR COMPOUND LOBELIA PILL.—

℞ Lobelia Seed ..... One ounce.
Lobelia Herb ..... Half ounce.
Anise ..... Half ounce.
Cayenne ..... Two drachms.

Mix with sufficient gum acacia and treacle to bind the mass, and make up into five grain pills. Dose: one or more after meals, as necessary. In delicate patients a two-and-a-half-grain pill after meals will be sufficient.

Excellent in Dyspeptic cases, Pain or Wind on the Stomach, &c., &c.

COMPOUND CARBON, OR ANTISEPTIC PILL.—

℞ Charcoal (wood, fine powder) ..... One ounce.
Calamus Aromaticus ..... Two drachms.
Cayenne ..... Half drachm.
Lobelia Seed ..... Half drachm.

Mix as the last, and prescribe in the same way.

Invaluable in Offensive Breath, Water Brash, Dyspepsia, &c., &c.

COMPOUND MOTHERWORT PILL.—

℞ Extract of Motherwort ..... One ounce.
Scutellarin ..... One drachm.
Cayenne ..... Half drachm.

Mix, and form into five grain pills. Dose: one every three or four hours.

Excellent in Hysteria, Palpitation of the Heart, Chorea, and Disease of the Nervous System generally.

HEPATIC PILL.—

℞ Extract of Mandrake ..... Half ounce.
Extract of Dandelion ..... Half ounce.
Sanguinarin ..... Twenty grains.
Oil of Caraway ..... Ten drops.
Blood Root (pulv.) ..... Sufficient.

Mix, and form into two-and-a-half-grain or five-grain pills. Dose: one or more at bed-time, as necessary.

Excellent in Chronic Disease of the Liver, Pancreas, Spleen, Jaundice, Bilious and Mesenteric Disease.

CAYENNE PILL.

℞ Cayenne ..... One ounce.
Oil of Spearmint ..... Twenty drops.

Mix with gum acacia and treacle sufficient to form into a mass, and divide into five-grain pills. Dose: one or more after meals.

Excellent in Flatulency, or Debility of the Stomach and Intestines.

ALTERATIVE PILL.—

℞ Mandrake (American) ..... Half ounce.
Blue Flag ..... Half ounce.
Extract of Poke Root ..... Half ounce.
Prickly Ash ..... Two drachms.
Cayenne ..... One drachm.
Oil of Sassafras ..... Twenty drops.

Mix, and form into five-grain pills. Dose: from four to six daily.

Excellent in Scrofulous, Strumous, Cutaneous, and Syphilitic Disease.

NEUROTIC, OR NERVE PILL.—

℞ Extract of Valerian ..... Half ounce.
Assafœtida ..... Half ounce.
Scutellarin ..... Half drachm.
Cayenne ..... Ten grains.

Mix, and form into five-grain pills. Dose: one every three or four hours.

Highly useful in Chorea, Neuralgia, or Tic Doloreux.

ANODYNE, OR COMPOUND OPIUM PILL.—

℞ Extract of Opium (Turkey) ..... One drachm.
Extract of Liquorice ..... Half ounce.

Mix, and form into five-grain pills. Dose: one at bed-time.

As an anodyne or opiate, this pill will be found most excellent; it should only be prescribed, however, where relief from severe pain cannot be obtained by other means. If preferred, the extract of Hyoscyamus may be used instead of Opium.

LOBELIA, OR EMETIC PILL.—

℞ Lobelia Seed ..... Half ounce.
Cayenne ..... One drachm.

Mix into a mass with gum acacia and treacle, and divide into five-grain pills. Dose: as an Emetic, from four to six at bed-time in Boneset, Chamomile, or Vervain tea.

Most excellent in cases where it is desirable to act on the system without excitement.

FAMILY PILL.—

℞ Aloes (Socotrine) ..... Half ounce.
Extract of Butternut ..... Two drachms.
Extract of Liquorice ..... Two drachms.
Lobelia Seed ..... One drachm.
Oil of Caraway ..... Twenty drops.

Mix, form into a mass, and divide into five-grain pills. Dose: two at bed-time, or one after meals.

This is an excellent pill for all family purposes, and may be used with advantage in every case where an aperient medicine is necessary.

OINTMENTS.

These preparations act in the generality of cases from the protection which they afford to the part affected, equally as much as from their medicinal qualities.

HEALING OINTMENT.—

℞ Burgundy Pitch ..... Twelve ounces.
Beeswax (Yellow) ..... Eight ounces.
Lard ..... Four ounces.
Mutton Suet ..... Four ounces.
Olive Oil ..... Two ounces.

Simmer until the first four are well melted, stir gently, add the oil, strain, express, well mix, and keep in a cool place.

It is necessary to bear in mind that the temperature affects the consistency of ointments, and that this may be met by adding or diminishing any one of the articles named.

Excellent for fresh or old Wounds, Sores, Ulcers, &c.

COMPOUND SPERMACETI, OR MALLOW OINTMENT.—

℞	Marshmallow (young green leaves)	Two ounces.
	White Wax	Two ounces.
	Spermaceti	Three ounces.
	Olive Oil	One ounce.

Gently simmer the leaves and spermaceti for one hour, strain, express, add the oil, well mix, and keep in a cool place.

This is an excellent ointment for Chapped Lips, Sore Nipples, Fissures of the Anus, &c., &c.

COMPOUND OINTMENT OF WOOD SANICLE.—

℞	Sanicle (green leaves)	Two ounces.
	Beeswax (yellow)	Six ounces.
	Rosin (white)	One ounce.
	Olive Oil	One ounce.

Prepare as the last.

Excellent in Wounds of every kind, but more particularly for Ulcers and old Gangrenous Sores.

CELANDINE OINTMENT.—

℞	Celandine (green herb, Chelidonium majos)	Two ounces.
	Spermaceti	One ounce.
	Beeswax	Four ounces.
	Mutton Suet	Two ounces.
	Olive Oil	Two ounces.

Gently simmer the first four one hour, strain, express, add the oil, well mix, and keep in a cool place.

Excellent in Tetter, Ringworm, Scabbed Head, Pityriasis, Lichen, &c.

COMPOUND DOCK, DISCUTIENT OR SCROFULA OINTMENT.—

℞	Plantain leaves	One ounce.
	Bitter Sweet (root of, crushed)	Two ounces.
	Yellow Dock root (crushed)	One ounce.
	White Resin	Four ounces.
	Olive Oil	Four ounces.
	Beeswax (yellow)	Four ounces.

Simmer the whole gently for one hour, strain, express, well mix, and keep in a cool place.

This is an excellent ointment for discussing Scrofulous and Indolent Tumours, Glandular Enlargements, Swellings, &c.

PILE OINTMENT.—

℞ Cranesbill (root, crushed, or coarse powder) ..... One ounce.
Pinus Canadensis (ditto) ..... Half ounce.
Beeswax (yellow) ..... Six ounces.
Mutton Suet ..... Two ounces.
Lard ..... Four ounces.
Olive Oil ..... One ounce.

Gently simmer the whole (except the oil) for one hour, strain, express, add the oil, mix well, and keep in a cool place.

This is a most excellent remedy for almost every purpose where an ointment is necessary. As an ointment for the Piles, however, it is unrivalled.

EYE OINTMENT.—

℞ Sanguinaria (in coarse powder) ..... Half ounce.
White Wax ..... Four ounces.
Olive Oil ..... Two ounces.

Gently simmer the powder and wax for one hour, strain, express, add the oil, well mix, and keep in a cool place.

This is a beautiful ointment for Inflamed and Sore Eyes, Inflamed Nipples, and painful Sores of every kind.

SOOTHING OINTMENT.—

℞ Red Poppy (flowers, dry) ..... One ounce.
Elder Flowers ..... One ounce.
White Wax ..... Six ounces.
Olive Oil ..... One ounce.

Gently simmer the flowers and wax for one hour, add the oil, strain, express, well mix, and keep in a cool place.

This is a very soothing delicate ointment, and affords ready relief in Rheumatism, painful Tumours, Swellings, Inflammations, Abrasions, &c., &c.

LOTIONS, WASHES, OR COLLYRIUMS.

Lotions are used pretty extensively in the old practice. Generally speaking, however, fomentations of hot herbs supply their place a thousand times better; nor do we know many forms of disease, apart from those of the eyes, where they are of any very great practical use.

WASH FOR INFLAMED EYES.—

℞ Distilled or Rose Water ..... One ounce.
Tincture of ~~Hydrastis~~ Canadensis ..... One drachm.
Tincture of Golden Seal ..... One drachm.

Mix, and apply with a fine camel-hair brush night and morning.

COMPOUND BISTORT WASH FOR OPHTHALMIA, &C.—

℞ Bayberry Powder ..... Half ounce.
Tincture of Bistort ..... One drachm.

Infuse the powder in eight ounces of boiling water, let it remain until cold, strain the liquor off clear, add the tincture, and use freely morning, noon, and night.

In inflamed Mucous Discharges from the ears, nose, vagina, urethra, or any other part, this wash is exceedingly useful.

ANOTHER WASH FOR INFLAMED EYES, &C.—

℞ Distilled or Soft Spring Water ..... One ounce.
Tincture of Myrrh (Simple or Compound) ..... Two drachms.

Mix and use as the last.

It may be made weaker or stronger as circumstances require.

SELECT MISCELLANEOUS REMEDIES.

TEETHING POWDER.—

℞ Podophyllin ..... Twenty grains.
Leptandrin ..... Twenty grains.
Ginger ..... Ten grains.
Sanguinarin ..... Ten grains.
Fine White Sugar ..... One and a half drachm.

Triturate, or rub up well in a mortar; divide into fifty powders. Dose: one powder at bed-time in a little preserve, or any other simple vehicle.

WORM POWDER.—

℞ Carolina Pink ..... One drachm.
Podophyllin ..... Thirty grains.
Sugar (fine white) ..... One drachm.

Triturate as the last, and divide into fifty powders. Dose: one powder in preserve, or any other simple vehicle, night and morning.

The same may be prepared in small cakes or nuts as gingerbread, with the addition of flour and treacle; or as troches or lozenges, with additional sugar and gum tragacynth.

REMEDY FOR GOITRE (Derbyshire Neck).—

℞ Burnt Sponge, finely powdered ..... Two ounces.
Cinnamon (powder)..... One ounce.

Mix well, divide into thirty-two parts, and take one part twice a day, in honey. Let the honey dissolve in the mouth, and swallow slowly.

As an external application or embrocation prescribe—

℞ Iodide of Potass ..... One drachm.
Soap Liniment ..... Two ounces.

Mix, and when the Iodide of Potass is dissolved, apply gently over the part affected, night and morning.

A strong infusion of Fullers' Teazle, used warm as a fomentation, before applying the liniment, will assist the cure, and if two or three wineglassfuls of the same are taken as a drink during the day, it will be useful.

It is necessary to bear in mind that when the disease is of very long standing it is rarely or never cured.

REMEDY FOR DYSPEPSIA OR INDIGESTION.—

℞ Valerian (root, in powder) ..... Half ounce.
Gentian Root (in powder) ..... Half ounce.
Carbonate of Soda ..... Two drachms.
Compound Spirits of Ammonia ..... Two drachms.

Infuse the two powders in a pint of boiling water, mix well, let it stand until cold, strain off the liquid, and add the two latter. Dose: a tablespoonful three times a day.

DENTIFRICE, OR TOOTH POWDER.—

℞ Bayberry ..... One ounce.
Tormentil ..... Half ounce.
Sanguinaria ..... One drachm.
Cinnamon ..... One drachm.

This is a most excellent preparation, and altogether harmless, which is more than can be said of the mineral preparations that compose the fashionable powders of ordinary drug shops.

PULMONARY TROCHES OR LOZENGES.—

℞ Sugar (fine white) ..... One pound.
Tolu Tincture..... One ounce.
Antispasmodic Tincture ..... Half ounce.
Oil of Peppermint ..... Twenty drops.
Gum Arabic ..... Sufficient.

Form the whole into a mass, cut out and prepare in the form of lozenges.

WASH FOR INFLAMED EYES.—

℞ Distilled or Rose Water ..... One ounce.
Tincture of ~~Hydrastis~~ Canadensis ..... One drachm.
Tincture of Golden Seal ..... One drachm.

Mix, and apply with a fine camel-hair brush night and morning.

COMPOUND BISTORT WASH FOR OPHTHALMIA, &C.—

℞ Bayberry Powder ..... Half ounce.
Tincture of Bistort ..... One drachm.

Infuse the powder in eight ounces of boiling water, let it remain until cold, strain the liquor off clear, add the tincture, and use freely morning, noon, and night.

In inflamed Mucous Discharges from the ears, nose, vagina, urethra, or any other part, this wash is exceedingly useful.

ANOTHER WASH FOR INFLAMED EYES, &C.—

℞ Distilled or Soft Spring Water ..... One ounce.
Tincture of Myrrh (Simple or Compound) ..... Two drachms.

Mix and use as the last.

It may be made weaker or stronger as circumstances require.

SELECT MISCELLANEOUS REMEDIES.

TEETHING POWDER.—

℞ Podophyllin ..... Twenty grains.
Leptandrin ..... Twenty grains.
Ginger ..... Ten grains.
Sanguinarin ..... Ten grains.
Fine White Sugar ..... One and a half drachm.

Triturate, or rub up well in a mortar; divide into fifty powders. Dose: one powder at bed-time in a little preserve, or any other simple vehicle.

WORM POWDER.—

℞ Carolina Pink ..... One drachm.
Podophyllin ..... Thirty grains.
Sugar (fine white) ..... One drachm.

Triturate as the last, and divide into fifty powders. Dose: one powder in preserve, or any other simple vehicle, night and morning.

The same may be prepared in small cakes or nuts as gingerbread, with the addition of flour and treacle; or as troches or lozenges, with additional sugar and gum tragacynth.

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Mix, and when the Iodide of Potass is dissolved, apply gently over the part affected, night and morning.

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It is necessary to bear in mind that when the disease is of very long standing it is rarely or never cured.

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℞ Valerian (root, in powder) ..... Half ounce.
Gentian Root (in powder) ..... Half ounce.
Carbonate of Soda ..... Two drachms.
Compound Spirits of Ammonia ..... Two drachms.

Infuse the two powders in a pint of boiling water, mix well, let it stand until cold, strain off the liquid, and add the two latter. Dose: a tablespoonful three times a day.

DENTIFRICE, OR TOOTH POWDER.—

℞ Bayberry ..... One ounce.
Tormentil ..... Half ounce.
Sanguinaria ..... One drachm.
Cinnamon ..... One drachm.

This is a most excellent preparation, and altogether harmless, which is more than can be said of the mineral preparations that compose the fashionable powders of ordinary drug shops.

PULMONARY TROCHES OR LOZENGES.—

℞ Sugar (fine white) ..... One pound.
Tolu Tincture ..... One ounce.
Antispasmodic Tincture ..... Half ounce.
Oil of Peppermint ..... Twenty drops.
Gum Arabic ..... Sufficient.

Form the whole into a mass, cut out and prepare in the form of lozenges.

This is a most excellent lozenge, and may be used with advantage in Consumption, Bronchial Disease, Coughs, and diseases of the chest generally.

REMEDY FOR SEAT WORMS, THREAD WORMS, AND ROUND WORMS IN CHILDREN.—

℞ Santonin ..... Twenty-one grains.
Podophyllin ..... Two grains.
Simple Syrup ..... Half ounce.
Distilled Water ..... Half ounce.

Mix, triturate well in a mortar, divide into four parts, and give one part every second night.

Eat nothing after tea, and use injections of salt and water, wormwood, or garlic, at bed-time.

AN EXCELLENT ANODYNE.—

℞ Proof Spirits of Wine ..... Three ounces.
Oil of Peppermint ..... Twenty drops.
Laudanum ..... Half drachm.

Mix well, and shake each time of taking. Dose: from a teaspoonful to a dessertspoonful at bedtime, in a little hot or cold water sweetened. It may also be applied externally, with very great benefit in Neuralgia, Rheumatism, and Gout.

REMEDY FOR TAPEWORM.—

℞ Oil of Male Fern ..... Three drachms.
Gum Acacia, or Slippery Elm, Mucilage ..... Two ounces.

Mix well, and take fasting.

Eat nothing after tea the night before taking the medicine, and take from a half-ounce to an ounce of castor oil upon going to bed, in order to prepare the stomach. Two hours after taking the oil and mucilage take another half-ounce of castor oil, and if a tablespoonful of honey is taken in the morning before the medicine, it will act with more certainty.

In delicate cases two drachms of the oil will be sufficient. The worm will most likely be expelled in an hour or two. Care must be taken, however, not to break it in its passage. See "Index," "Worms," and follow the directions there given.

REMEDY FOR POLYPUS.

℞ Powdered Blood-root ..... Half ounce.
Powdered Alum ..... Two drachms.
Gallic Acid ..... One drachm.

Mix, and use as ordinary snuff; or, where the passage is completely obstructed, take a small camel-hair brush, wet it in cold water, dip it into the powder, and apply five or six times daily.

REMEDY FOR TOOTHACHE THROUGH DECAY.—

℞ Prickly Ash Bark (in powder)..... Two drachms.
Camphor ..... One drachm.
Opium (in powder)..... One drachm.
Oil of Cloves ..... Twenty drops.
Galbanum (Gum, in powder) ..... Sufficient.

Add alcohol sufficient to form into a pill mass, and divide into grain-and-half or two-grain pills.

One of these pills placed in the hollow or decayed part of the tooth will afford immediate relief.

Keep the pills free from exposure to the air.

REMEDY FOR DYSENTERY.—

℞ Oil of Cinnamon ..... Half drachm.
Oil of Peppermint ..... Half drachm.
Laudanum ..... Half ounce.
Proof Spirits of Wine..... One pint.

Mix well. Dose: a dessertspoonful every three or four hours.

This remedy may be taken with advantage in all cases where the Dysentery is accompanied with Tenesmus, or straining painful motions. The diet, in such cases, should consist of rice, tapioca, the digestive food, chicken broth, and such light food as the stomach will tolerate.

REMEDY FOR MENORRHAGIA, OR IMMODERATE MENSTRUATION.—

℞ Beth-root (in powder) ..... Half ounce.
Tormentil (in powder) ..... Half ounce.
English Rhubarb (in powder) ..... Two drachms.

Add sufficient Proof Spirits of Wine to mix, let it stand twenty-four hours, put into a quart bottle, add a pint and a half of the best port wine, and shake up daily for a week. Dose: a half wineglassful of the liquid only, in an equal quantity of cold water, three and four times a day.

OLD HENRY'S REMEDY FOR CANCER.—

℞ Extract of Poke-root, and Extract of Sharp-pointed Dock ..... Equal parts.

Spread as ointment on white leather and apply night and morning.

Drink at the same time a small teacupful of the infusion of Tag Alder.

REMEDY FOR GOUT AND CHRONIC RHEUMATISM.—

℞ Prickly Ash Bark ..... One ounce.
Sassafras Bark ..... Half ounce.
Betony (Wood) ..... One ounce.

Boil the barks gently in two quarts of rain water down to three pints. Throw the whole upon the herb, cover, and when cold express. Dose: a wineglassful three times a day. At bed-time make a teacupful hot, and add a quarter of a teaspoonful (fifteen grains) of ginger, and sweeten with treacle.

REMEDY FOR OLD ULCERS.—

℞ Prickly Ash Bark ..... Two ounces.
Water Dock ..... Two ounces.
English Rhubarb Root ..... One ounce.

Crush or cut the dried roots small, and gently simmer in five pints of distilled or rain water down to two quarts; add two ounces of pure spirits of wine.
Dose: a wineglassful four times a day.

Wash the ulcers in an infusion of wormwood, sprinkle or cover with powdered prickly ash bark, and cover with cloths, constantly wet with the wormwood infusion until they are healed.

REMEDY FOR SECONDARY SYPHILIS.—

℞ Prickly Ash Bark ..... Four ounces.
Sarsaparilla Root (Jamaica) ..... Two ounces.
English Rhubarb Root ..... One ounce.
Soapwort (root of) ..... One ounce.

Bruise or cut the dried roots small, simmer in five pints of rain or distilled water down to two quarts, when cold express. Dose: a wineglassful four times a day.

REMEDY FOR HYSTERIA.—

℞ Mugwort (herb, dry)..... Two ounces.
Balm (herb, dry) ..... one ounce.

Infuse in three pints of boiling water, in a covered vessel, let it stand until cold, express and sweeten with lump sugar. Dose: wineglassful, cold, three times a day.

OLD REMEDY FOR TAPEWORM.—

℞ Powdered Male Fern (root) ..... One ounce.

Divide into four parts, and take one part night and morning.

The patient should eat nothing from tea time, and take a teaspoonful of powdered mandrake and ginger (equal parts) mixed, two hours before taking the male fern at night, and two hours after

taking it in the morning. Keep within doors, sit on a close stool, and be careful not to break the worm as it passes. The original purge in connection with the fern was calomel, scammony, and gamboge. It is better and safer, however, to prescribe mandrake and ginger.

In the year 1755, Dr. Paris tells us, the King of France purchased this remedy from Madam Nouffeur for a very considerable sum of money.

Remedy for Hoarseness and Loss of Voice.—

℞ Horseradish Root (dry, in thin strips, or scraped) ... Two ounces.

Simmer with two quarts of rain water, over a slow fire, in a covered vessel, down to three pints; when cold express, add three pounds of lump sugar. Prepare as a syrup, and take from one to two teaspoonfuls every three or four hours.

Remedy for Hemoptysis or Bleeding from the Lungs.—

℞ Harts-tongue (dry herb) ..... Two ounces.
Beth-root (in powder) ..... Half ounce.

Gently simmer the herb in three pints of rain water, for half an hour, in a covered vessel; throw the whole off upon the powder, mix well, let it cool, express, add four ounces of lump sugar, and four ounces, or a noggin of the best pale French brandy. Dose: a small wineglassful four times a day.

Ointment for Scalds, Burns from Fire, and Chilblains.—

℞ Harts-tongue (dry leaves, powdered) ..... Four ounces.
Linseed Oil ..... Half pint.
Mutton Suet ..... Two ounces.
Beeswax ..... Four ounces.

Boil the herb in two quarts of water for one hour, express and evaporate to the consistency of treacle: add the beeswax, linseed oil, and mutton suet, gently simmer, and agitate or stir until the whole are well incorporated.

Remedy for removing Mucous Accumulations and Film from the Eyes.—

℞ Express Juice of Celandine (Chelidonium majus) and
Ground Ivy ..... Half ounce.
Bay Salt ..... One drachm.

Strain the juice clear, dissolve the salt, and keep in a cool place.

Gently touch the conjunctiva or surface of the eye with a small camel-hair brush, wet with this, twice or three times a day, until the obstruction is removed.

In cases where the deposit or accumulation arises from a strumous taint, alterative medicines should be prescribed internally.

Remedy for Asthma or Tightness upon the Chest.—

℞ Ground Ivy (herb, dry) ..... One ounce.
Angelica Herb (dry) ..... One ounce.

Infuse in a quart of boiling water, strain, express, and add four ounces of lump sugar and two ounces of acid tincture of lobelia. Dose: a tablespoonful three times a day, and double the quantity at bed-time.

Remedy for Irritation of the Skin and Cutaneous Disease.—

℞ Fumitory (dry herb)..... Two ounces.

Infuse in three pints of boiling water, in a covered vessel, express, and add half an ounce of the tincture of Stillingia, and half ounce of tincture of Mandrake. Dose: a tablespoonful three times a day.

Remedy for Atrophy or Wasting of the Body.—

℞ Eryngo Root (dry and crushed)..... Two ounces.
Comfrey Root (dry and crushed) ..... One ounce.
Liquorice root (dry and crushed) ..... One ounce.
Anise Seed..... Half ounce.

Gently simmer for one hour in two quarts of boiling water down to three pints, express, add four ounces of lump sugar and one ounce of spirituous lobelia tincture. Dose: from a dessertspoonful to a tablespoonful four times a day, in a wineglassful of new milk.

Remedy for Scrofula.—

℞ Coltsfoot (leaves, dry) ..... One ounce.
Vervain (herb, dry)..... One ounce.
Dog Mercury (herb, dry) ..... Half ounce
Spurge laurel (leaves, dry)..... Two drachms.

Gently simmer the whole in two quarts of boiling water down to three pints; express, add half ounce of extract of poke root, and an ounce of Spanish juice. Dose: a tablespoonful three and four times a day.

Apply cloths saturated with a decoction of wormwood, hot, at night, and protect the parts with flannel during the day; or if the glands are likely to suppurate, poultice with powdered white pond-lily.

Remedy for Palpitation of the Heart.—

℞ Motherwort (herb, dry) ..... One ounce.
Balm (herb, dry)..... One ounce.

Infuse in three pints of boiling water, in a covered vessel, for one hour, strain, express, add four ounces of lump sugar and one ounce of anti-spasmodic tincture. Dose: a tablespoonful three times a day.

REMEDY FOR COUGHS, TIGHTNESS OF THE CHEST, AND GENERAL DEBILITY.—

℞ Maiden-hair (herb, dry)..... Six ounces.
Liquorice Root..... Two ounces.
Boiling Water..... Three pints.

Infuse for one hour, express, allow the liquid to cool, strain from the sediment and add—

Fine white Sugar..... Four pounds.
Orange Flower Water..... Two ounces.

Gently boil to a proper consistency.

This is the famous Capillaire Syrup imported from France and sold by confectioners.

Dose: a dessertspoonful, diluted in an equal quantity of water, three or four times daily, or in a wineglassful of new milk.

Used in the latter form it is most excellent for delicate consumptive patients.

ERRHINES *(Snuffs)*.

We have spoken of these as being useful in certain cases. Like many other medical nostrums, however, but few of them are of any practical value.

ERRHINE FOR POLYPUS IN THE NOSE.

℞ Gallic Acid..... Two drachms.
Fern Root (male, fine powder)..... One drachm.
Sanguinaria..... One drachm.

Mix or triturate finely in a mortar, and use freely as snuff.

This is an excellent remedy for Polypus, and where it is not so far advanced as to affect the nasal bones, if persevered with, will seldom fail to remove it.

ERRHINE FOR PAINS OF THE HEAD AND OVER THE EYES.—

℞ Asarabacca (fine powder)..... Half ounce.
Betony (ditto)..... Two drachms.
Bayberry (ditto)..... One drachm.

Triturate or rub up fine in a mortar, and use as snuff when required.

FEVER DRINKS.

Effervescing Drink.—

℞ Bicarbonate of Potass or Soda ..... Twenty grains.
Tartaric or Citric Acid..... Fifteen grains.
Finely-powdered Lump Sugar ..... Half drachm.
Put the above in a tumbler, pour on cold water, and stir rapidly.

This is a pleasing effervescing summer drink, and may be taken with advantage in fever, or during hot weather, or when the system is exhausted.

Apple Tea.—

Skin and cut up two or three large apples into thin slices, or form them into a pulpy mass with a coarse grater, pour on a quart or three pints of boiling water, cover, let it cool, strain, and sweeten with lump sugar.

This is a most excellent fever drink, and may be used either by adults or children. It is superior to almost every other, and may be used *ad libitum*.

Lemonade.—

Pare two lemons as thin as possible, put half the rind of one into a pint and a half or quart of hot water (not boiling), and cover it over for three or four hours. Squeeze the juice of the lemons out into a bowl, add the liquid from the rind, and sweeten with lump sugar.

This may be used as the others, or as an ordinary drink during the summer, neat, as prepared, or diluted to suit the taste.

Orangeade.—

Squeeze the juice from a dozen organes, and infuse the peel of four of them in a quart of boiling water. Boil sufficient water and sugar to form a thin syrup, skim it, and when the whole is cold mix with as much more water as will make a rich sherbet, strain, and cool.

May be used instead of the last, or in change as necessary.

Concentrated Lemonade.—

℞ Essence of Lemon ..... One drachm.
Citric Acid ..... Half ounce.
Lump Sugar ..... Two and a half pounds.
Water (cold) ..... One pint.

Mix the water and sugar, gently simmer or boil, throw upon the acids, bottle, and keep in a cool place.

A tablespoonful mixed with a tumblerful of water makes a very pleasant drink.

Cranberry Water.—

Bruise a cupful of cranberries and mix with a cupful of cold water. Boil two quarts of water with a tablespoonful of oatmeal and the rind of a lemon, stir in the cranberries and water, add four ounces of candied or granulated sugar and a quarter of a pint of white or sherry wine, simmer for a quarter of an hour, let it cool, strain, and bottle for use.

Excellent in all cases of fever, or to allay thirst at any time.

Raspberry Water.—

Mix from a teaspoonful to a dessertspoonful of raspberry vinegar in a tumblerful of cold or hot water, sweeten, or use unsweetened as most agreeable to the patient.

This is a very agreeable drink, and may be used in fever, either in change or instead of the others.

Rhubarb Sherbet.—

Skin and cut two or three stems of rhubarb, add the rind of a lemon, and boil in three pints of water for ten minutes or a quarter of an hour, strain off upon three ounces of candied sugar, and when cool bottle for use.

Excellent in fever, and may be used in change with the "Apple Tea," or any of the other drinks.

Currant Jelly Water.—

Dissolve a small tablespoonful of currant jelly (either black, red, or white, according to taste) in a tumbler of water, and add from ten to fifteen grains of tartaric or citric acid.

This is very grateful and refreshing, and may be used in all cases where a drink of the kind is necessary.

Pearl Barley Water.—

Every one knows the use of this, and how to prepare it; there need be nothing said, therefore, but simply to recommend it in all cases where it is necessary to combine a nutrient with drink.

RICE WATER.—

Prepared in the same way as the last. Highly useful in Cholera, Diarrhœa, Dysentery, &c.

TOAST AND WATER.—

Very useful both as a nutrient and drink.

SOLID AND FLUID EXTRACTS.

These, like the Concentrated Medicines introduced throughout the work, are generally kept in stock by wholesale botanic pharmacists, and from the fact of their being made in larger quantities, and the heavy duty on alcohol, the majority of them are imported and sold at a cheaper rate than they can be prepared; but where our indigenous plants give off their properties in water, as many of them do, they can be prepared either in a solid or fluid form. An ounce of herb infused in sixteen ounces of water generally yields an ounce of fluid extract, which may be prescribed in small quantities, or mixed with water, or such other medicines as the peculiarity of any particular case indicates. We need do no more than give the method of preparing any one or two single extracts, in order to make it generally understood.*

EXTRACT OF WORMWOOD.—

℞ Leaves and tops of Wormwood ..... Four pounds.

Infuse in a suitable vessel with six quarts of boiling water; cover, and macerate for twenty-four hours; express, add six pints more of boiling water to the residue, macerate again for fourteen hours, express and evaporate the liquid over a very slow fire or in a water bath until the whole is reduced one-third, let it stand until cold, strain off the clear fluid from the residue, and evaporate until reduced to about three pints.

EXTRACT OF CHAMOMILE.—

℞ Chamomile (tops and leaves) ..... One pound.

Boil in a gallon of water down to four pints; filter the liquid hot and evaporate in a water bath to sixteen ounces.

* These Extracts, with the other remedies, can be obtained of Mr. R. Bean, Pharmaceutical Chemist, 148, Briggate, Leeds; and from Dr. Skelton, 105, Great Russell Street, Bloomsbury, London, W.C.; from whom price lists can be had at any time.

The great advantages which these extracts have over the ordinary decoctions and infusions are—1st, that when properly made they may be kept any length of time; and, 2nd, that being always at hand, they are more conveniently and readily prescribed.

The solid aqueous extracts are made by simply evaporating off the whole of the fluid, or as much of it as may be necessary to leave the extractive matters in a solid state.

It is in this way that the aqueous extracts of Motherwort, Dandelion, Boneset, Poplar Bark, Bittersweet, Fumitory, Vervain, Yellow Dock, Sarsaparilla, Clivers, Agrimony, &c., &c., are prepared.

CANCER FORMULÆ.

We have directed attention to the various forms of Cancer in Chapter XVI., with the promise to notice the *formulæ* or prescriptions employed for their cure. A genuine Scirrhus or Malignant Cancer we have said is incurable, and why it is presumed to be curable is simply because its pathological character is not well understood.

Dr. Samuel Thomson's famous Cancer Plaster.—

"Take a brass kettle that will hold eighteen or twenty gallons, and fill it with the heads of red clover, pressed close together with some heavy substance to keep them down, and pour in water till the clover is covered. Boil it one hour over a lively fire, then strain off and press out all the liquor from the clover. Fill the kettle again with fresh clover, boil in the liquor that was obtained from the first boiling for the same length of time, and strain off as before, then simmer it over a slow fire till it is about the consistence of tar, when it is fit for use. Great care should be taken not to burn it, as that destroys in a great measure its virtues."

"*Medical use.*—This salve is adhesive, emollient, and antiseptic. Good for Old Sores, Cancers, Sore Lips, &c. When used it should be spread upon a piece of split bladder, or on the membranous covering of suet, lard, or tallow."*

* Thomson's "Materia Medica and Family Physician," 1841.

OLD GERRARDE ON THE VIRTUES OF VERONICA FŒMINA (FEMALE SPEEDWELL), AND OTHERS OF THE SAME CLASS IN THE CURE OF CANCER.

"These plants are not onely of a singular astringent facultie, and thereby help them that bee greeued with the Dysentery and hoat Swelling, but of singular efficacie to heale spreading and eating Cankers (Cancers) and corosive Vlcers. *That their virtue in a manner passeth all credit* upon these fretting Sores upon sure proof done unto sundry persons, and *especially upon a man* whom PENA reporteth to have his nose eaten most greeuiously with a Canker or eating Sore, who sent for the Phisisions and Chirurgions that were famously known to be the best, and they with one consent concluded to cut the saide nose off to preserue the rest of his face. Among these Phisicians and Chirurgeons came a poore sorie Barbar, who had no more skill than he had learned by tradition, and yet undertooke to cure the patient. This foresaide Barbar standing in the companie and hearing their determination, desired that he might make triall of an herbe which he had seen his master use for the same purpose, which herbe, * * though he were ignorant of the name whereby it was called, yet he knew where to fetch. To be shorte, this herbe he stamped (expressed), and gave the iuice of it unto the patient to drinke, and outwardly applied the same plasterwise, and in a very short space perfectly cured the man, and staide the rest of his bodie from further corruption, which was ready to fall into a leprosie."*

ATROPA BELLADONNA AS A CURE FOR CANCER.—

"The bruised leaves, applied as a poultice, give relief to lumps and swellings of the breast; even Cancers in their early stage have given way to them; and in their open state, the pain and burning which they occasion will be relieved."—*Waller.* (*Copied from Ray and other Authors.*)

OLD SALMON'S SCIRRHUS PLASTER.—

℞ "Hemlock (Express Juice of) ..... Four ounces.
Vinegar of Squills..... Eight ounces.
Gum Ammoniacum ..... Eight ounces.

* The Herbal or General History of Plantes gathered by John Gerrarde, Master in Chirurgery. 1597.

Dissolve the gum in the juice and vinegar by a gentle infusion in a warm sand heat (sand bath, hot sand), then strain and reduce to the consistency of an emplaster."

"Here note, that if the quantity of the juice was doubled, it would be so much the better. It was invented to ease pains chiefly of the Spleen and Gout. My experience has confirmed it, and such as shall use it upon my word may have cause to return me thanks for this recommendation. It is also an excellent thing to dissolve *Scirrhus*, and other like hard tumours in any part of the body, chiefly tumours of the *Liver, Spleen, Hypochonders*, and joints."

JOHN WESLEY'S FAMOUS CURES FOR CANCER.

"A Cancer of the Breast of thirteen years standing was cured by frequently applied *Red Poppy Water, Plantane, and Rose Water, mixed with Honey of Roses.* Afterwards the waters used alone perfected the cure."

To Cure Cancer in any other part.—

"Apply red onions bruised, or make a plaster of *Roch-Alum, vinegar, and honey, with wheat flour.* Change it every twelve hours."

To Cure Cancer in the Mouth.—

"Boil a few leaves of *Succory, Plantane,* and *Rue* with a spoonful of *honey* for a quarter of an hour, gargle with this often in an hour." —*Wesley's Primitive Physic.* 1747.

The Last New Remedy for Cancer.—

"Take a piece of adhesive plaster, cut it round or circular sufficiently large to cover the surrounding parts, and immediately over the Scirrhus, or part affected, cut a small hole sufficiently large to expose the tumour; to which apply *Chloride* Zinc, Blood-root, and wheat flour formed into a thick paste. Keep it on twenty-four hours. It acts as a strong escharotic, and destroys the cancer by setting up ulceration. The wound is dressed daily with Slippery Elm, and the Cancer falls out in a hard lump like dead flesh."*

* See vol. 8, No. 5, of the "American Eclectic Medical Journal" for 1870.

We remember some few years ago, that the medical staff of Middlesex Hospital, London, permitted this experiment to be tried upon several patients by an American Professor of great promise. It failed, however, after producing indescribable torture in every case, and the practice was given up in disgust.

HYGIENE.

If the student will turn to the "Preface" and "Introduction, — and read our remarks upon this great primary branch of healing, he will see the estimate in which we hold it. "It embraces," we have said, "everything connected with the health and happiness of mankind," and he who aspires to become proficient in his profession must not fail to devote his attention to this.

OF BATHS.

Baths, whether considered as prophylactic or preventive of disease, or as a means of cure, have been used in some form or other by all nations in every age of the world, nor need we say one word by way of commendation; like all good things, however, they must be used prudently, if their advantages are to be fully recognised. In many forms of cutaneous disease

Sea Bathing

Is exceedingly useful, and will often effect a cure when medicine fails; whilst cases of dyspepsia or indigestion are greatly relieved by cold morning ablutions.

Shower Baths,

Where they can be conveniently applied, are most excellent, or in their place the

Towel Bath,

Which, by-the-by, answers every purpose, and is both clean and convenient. The method of applying it is this. Strip off the whole of the night clothing, wash the cavities of the body clean with soap and water, saturate or wet through a coarse towel, wring it out, throw it across the shoulders and carry it over every part. After which rub well with a dry towel; dress, and to business. As a means of preserving health, this simple method is unsurpassed by all others, and can be applied with equal advantage by all classes. What is known as the

Turkish or Hot Air Bath

Is in great favour with many, but it has no advantages over the spirit and vapour bath, nor can it be applied at all in clinical or bed-side practice. There can be no objection to it, however, wherever practically beneficial. In cases of *Psoriasis*, *Scabies* or *Itch*, the

Sulphur Bath

May be used with very great advantage. Simply throw a handful of finely-powdered sulphur into a gallon of hot water, mix well, stand the patient in it, and bathe the body all over. It should be done by the fire, and allowed to dry upon the skin.

In *Colds*, *Influenza*, *Inflammation*, and *Fever* many practitioners prefer the

Spirit Bath,

And certainly it is a very neat and clean way. Simply put about a noggin or quarter of a pint of pure alcohol or spirits of wine into a lamp large enough to admit three good size flat or round wicks, place it under a cane-bottom chair, upon the seat of which lay a coarse cloth double folded: sit your patient upon it with the feet in a pan of warm water, envelope or cover the body all over with a large blanket or rug to exclude the air, light your lamp, confine the heat, raise a gentle perspiration, and keep it up for fifteen or twenty minutes; after which rub the skin all over with a dry cloth, put into a warm comfortable bed, and prescribe according to the indications of the case. If the lamp is sufficiently large, the wicks in proportion, with a tin or zinc pan to fit the top, perforated around the

sides so as to admit the air for about two inches and a half under the bottom, and filled with boiling water or such infusion of herbs as the practitioner may think proper, it will be equally available for giving either an ordinary

Aqueous, or Medicated Vapour Bath,

By simply perforating the cover thickly all over, and applying sufficient heat; any quantity of steam may be generated in this way; nor is there anything objectionable in the plan on account of the domestic difficulties, as in many other methods, inasmuch as the medical practitioner can command and apply it with perfect ease.*

Warm Water, or Medicated Water Bath.

Of these nothing need be said more than will be found throughout the work; nor of

Local Medicated Baths, or Herbal Fomentations,

Whether used for the *feet* or applied to the *Ears*, *Eyes*, *Nose*, *Larynx*, *Bronchial Tubes*, *Pharynx*, *Fauces*, or in *Pleurisy*, *Pneumonia*, or any acute attack to which the parts are liable. In all such cases, "*Local Medicated Baths* are invaluable." The plan is so easy that any one may apply them. Simply fill a two-quart jug with whatever boiling infusion may best suit the case, cover the top with a coarse towel, hold the mouth or part affected over the steam, and cover the head with a blanket. Free perspiration is at once raised, and the congested or capillary vessels relieved of their pressure, the difficulty is as suddenly removed. In very delicate patients it is necessary, in commencing the use of baths, to deal very gently with them; in all such cases prescribe for some time the

Dry Air and Warm Towel Bath,

That is to say, order your patient to strip off his or her night dress, and have the skin rubbed all over briskly with a dry warm towel for about five or six minutes. After a time, as the strength improves, the damp towel may be used instead. Every form of bath can be thus made available by the means described, and the indication of each particular case met with satisfaction and ease.

* Baths suitable for the purpose may be obtained of R. Bean, 148, Briggate, Leeds.

OF AIR AND VENTILATION.

Of the importance of ventilation or a proper supply of pure air, whether considered as a preventive or cure of disease, we have spoken throughout the work, and have nothing further to add except to say that where it becomes necessary, through the extreme delicacy of a patient, to exclude the cold, ventilation need not be interfered with. Keep the apartment warm, not by keeping the air out, but by warming it as it comes in. What wholesome food is to the stomach, pure air is to the lungs; without the one, in fact, the other is useless.

OF EXERCISE.

In acute diseases nature tells us that exercise is injurious. Quiet medical supervision and careful nursing are the great requisites in such cases. The same may also be said in case of accident, and in many forms of Chronic Disease. Where the system is debilitated, however, from confinement, sedentary, or other employments, injurious professions, want of mental excitement, over indulgence, undue exercise of the passions, or any other injurious cause, exercise and change are the great requisites of cure. John Wesley's rule in such cases was very good. To the bed-lyer he says, begin by rising a little earlier to-morrow morning, and increase or double it a few minutes every following morning, supplementing the same with a few yards extra walk. Be determined to master old habits, and replace them with new, and the advantages which will follow will make that which was at first irksome and painful become a pleasure. He spoke from experience, after having tried the experiment; and there is no teaching like that obtained from actual practice. My own plan is to take exercise on foot daily, particularly in the morning before breakfast. I retire regularly between ten and eleven, and rarely awake until it is time to rise. I then get up, take my "cold towel bath," and follow it with exercise in the open air. Habit, it is said, is second nature, and this I am sure is true, for were I to neglect the daily routine named I should soon fancy myself ill, if I were not so. Walking is much more beneficial than riding, whatever position we may occupy

in life, and where health is the object sought it should always be preferred. Where causes operate to prevent the former, however, the latter may very well supply its place.

DIETETIC TABLE FOR INVALIDS.

"What is one man's meat," it is said, "is another man's poison," and there is doubtless much truth in this. Generally speaking, however, we may safely prescribe for invalids. In health men and women with anything like observation know what best suits them; but in disease the housewife is often at a loss what to do. We propose, therefore, to give a few simple receipts suited to the requirements of the sick.

Isinglass Jelly.—

Dissolve an ounce of isinglass in a half-pint of water, add two tablespoonfuls of apple jelly, a pint and a half of water, and a quarter of a pound of lump sugar. Gently simmer until the whole are well incorporated, let it cool, and use at any time.

There is much nutrition in this, and in all Cachectic and Consumptive cases it may be taken with very great advantage.

Carageen Moss.—

Take a quarter of an ounce of the above moss, steep it for fifteen or twenty minutes in cold water, rince, put it into a pint and a half of new milk, with a few bits of cinnamon stick, a bit of lemon peel, and lump sugar sufficient to suit the taste; gently simmer until the carageen is dissolved, strain through a muslin bag, and let it stand until cold. A small quantity may then be warmed and taken at any time.

This is most excellent in consumptive cases, or where the patient is troubled with an irritable exciting cough, or general weakness of the chest.

Mutton Custard.—

Take two ounces of fresh mutton suet, shred fine, half a drachm of cinnamon or grated nutmeg, and gently simmer in rather more than a pint of new milk; carefully scum as it rises.

This is highly nutritious, and may be taken in Enteric disease, Diarrhœa, and Consumption, with very great advantage.

JELLY FOR DELICATE PATIENTS.—

Take three ounces of Isinglass, two ounces of Candied Eryngo Root, and an ounce each of Pearl Barley, Rice, and Conserve of Roses; put the whole into two quarts of water, and gently simmer for four or five hours until it is reduced to a pint.

A tablespoonful of this if put into a teacupful of sweetened milk is highly nutritious and useful in cases of Atrophy or Wasting of the System, Weakness of the Chest, Consumption, &c.

CHOCOLATE FOR INVALIDS.—

Take one square of Chocolate (the sixth part of a cake), shave it and boil in a pint of water for five minutes, add a pint of new milk and boil together; after which mix a teaspoonful of arrowroot with a little cold water, add and simmer gently for five minutes longer.

This is a very nutritious beverage, and may be taken by invalids with much benefit.

STRENGTHENING JELLY.—

Take the bones of a knuckle of veal, well scrape all the meat from them, and stew for four or five hours in two quarts of water, let it cool, and skim it clear from all fat and sediment, flavour with a little wine or brandy.

This is highly nutritious, and may be taken by the delicate with advantage at any time.

MEAT JELLY FOR THE DELICATE.—

Take two pounds of lean beef, cut in pieces with a hock of ham about the same weight, a knuckle of veal, and a small quantity of salt and mace, without any other spice, cover the whole with water, and stew for about seven hours, strain, and when cold take off the fat, clear it with whites of eggs, and pass it through a jelly-bag. When prepared it should make about five quarts.

It is highly nutritious, and may be taken cold or warm agreeably with the taste of the patient.

BEEF TEA.—

Take one pound of lean beef, pick all the fat off, cut it into small pieces about the size of nutmegs, or smaller, put into an enamelled saucepan with a quart of water, two cloves, and a half teaspoonful of salt; simmer for three or four hours, and carefully skim as the fat and skum arise.

This is a most excellent nutrient, and may be taken *ad libitum* at any time.

Soup for the Convalescent.—

Put alternate layers of lean beef and turnip, cut small, into a jar, place it in a water bath or slow oven, and let it remain for three hours or more; after which drain, express the liquid, and let it stand until cold; skim the fat carefully off, season, and use as necessary.

This is highly nutritious, and may be used during convalescence with very great advantage.

Another excellent Soup for the Convalescent.—

Take six pounds of shin of beef, an onion cut small, three quarts of water, two teaspoonfuls of salt, and a little pepper; put the whole into a jar, cover, and let it stand all night in a moderately warm oven, strain, skim off the fat, and take with a little crummed or toasted bread.

This, like the last, may be taken with very great benefit as freely as the system requires it.

Artificial Whey.—

Gently simmer a pint of skim milk, add two glasses of sherry wine, and sufficient lemon juice to turn the milk; set it aside until the curd subsides, strain, and add sugar sufficient to make it pleasant.

A wineglassful three or four times daily may be taken with much benefit in cases of Consumption, Cough, and Weakness of the Chest generally.

Egged Wine.—

Beat up two eggs in a basin, with an ounce and a half of finely-powdered white sugar and a little grated nutmeg; gently simmer a pint of sherry wine and water in equal quantities, stir in the eggs, &c., as it boils, and throw forwards and backwards several times from the saucepan to the jug until it is well incorporated.

This is a very nutritious gentle stimulant, and may be taken with much benefit by invalids at any time.

Roasted Dandelion.—

This forms a most excellent beverage for invalids, and may be taken with the meals in every condition of the system, whether in health or disease, with the greatest benefit, but more particularly in Dyspeptic cases, in convalescence supervening upon Diseases of the Liver, Pancreas, or Spleen, or wherever there is a predisposition to these diseases.

DIGESTIVE FOOD.—

℞ Finely-powdered Lump Sugar ..... One pound.
Slippery Elm ..... Four ounces.
Cinnamon..... One drachm.

Mix until the whole are well incorporated, and take a teaspoonful in a small teacupful of boiling milk ; stir briskly while preparing.

This is most excellent in all cases of disease or debility, whether of adults or children, and may be taken with advantage at any time. It is also most excellent for very young children when brought up by the bottle.

FIGS AND MILK.—

Split and gently simmer three or four figs in a half pint of new milk for one hour, and take at any time. The figs may be boiled three or four times over in fresh milk with equal benefit.

This is very beneficial in Consumption and Diseases of the Chest generally.

STEWED APPLES OR APPLE BUTTER.—

Peel a dozen or more of good cooking apples, cut into small pieces, add a little lemon rind and two or three cloves, stew, mash with a spoon into a pulp, and use with the bread instead of butter.

Mixed with new milk, and taken daily, it is exceedingly useful in almost every form of chronic disease.

SHOW COLOURS FOR SHOP WINDOWS.

RED.

Add a sufficient quantity of Tincture of Iodine to proof Spirits of Wine to produce the desired colour. Should it fade, the colour may be renewed by adding more tincture.

BLUE.

Dissolve one ounce of *Sulphate of Copper* in a pint of Distilled Water, and add half ounce of *Sulphuric Acid.*

GREEN.

Dissolve *Sulphate of Copper* in Distilled Water, and add *Nitric Acid* sufficient to give the required colour.

Orange.

Dissolve *Bichromate of Potass* in Distilled Water until the required colour is produced.

Purple.

Dissolve one ounce of *Sulphate of Copper* in two pints and a half of distilled water, and add one ounce and a half of *Carbonate of Ammonia*.

CONCLUDING REMARKS.

Reader, our work is done, and we have nothing to add. To the best of our understanding, after the practical experience of a quarter of a century, we have been forced to the conclusion that medicine must come back again to first principles before it can make any great progress. Our labour has been one of pleasure, because we felt it was useful, and our hope is, that greater than we may come to the rescue, and that medicine may be raised to the highest point of practical utility, and fulfil in future the great end for which it was designed by the Creator—viz., the health and security of mankind.

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ERRATA.

The reader will please take the pen and make the alterations as follows :—

Where a word requires to be removed, and another inserted, draw a line across it thus ——and write over as dotted ; or if one or more letters require removing, and others adding, adopt a similar process.

Before commencing the study of a work it is well to note the *Errata*, and make the alterations with the pen. In so doing we avoid errors that we might otherwise fall into.

See "Contents," chap. xx., page 3, figures 689 and 731, draw the pen across the latter, and insert 758. See also Index, figures 732 and 736, and alter to 759 and 768.

See page 23, first line in second paragraph, cross out the word "*mineral*" and insert "*animal.*"

See first line in "Note," page 72, cross out "*ree*" and insert "*free.*" This error is found in a few numbers only, the printer having discovered and made the correction soon after pulling the first sheets.

For "*Copeland*" strike out the "*e*" wherever noticed, and read "*Copland.*"

See "*Constapio,*" page 131, cross out, and insert "*Constipatio.*"

See "*Hyderacea,*" page 176, first line of prescription, cross out, and insert "*Hederacea.*"

See "*Asclepis,*" page 301, first line of prescription, cross out, and insert "*Asclepias.*"

See "*Leonorus,*" page 342, second line of prescription, cross out, and insert "*Leonurus.*"

See line sixteen from the bottom, page 382, cross out the word "*know,*" and insert it at the end of the line above, after the word "not." It will then stand corrected thus, "And you do not know."

See page 703 (next to page 704), cross out the "3," insert "5," and alter on to page 734. The "Appendix" and "Index" will then correspond with the corrected figures.

See page 736, as corrected, line second, first prescription, cross out the word "*Hydrastis,*" and insert "*Sanguinaria,*" it will then read "Sanguinaria Canadensis."

NOTE.—It is possible that some few other inaccuracies may have crept in ; if so, the reader will do well to correct them as soon as noticed. We have no excuse to offer, except that of our own oversight and printers' "pie." Of course the "printer" transferred the errors as they occurred to others, but you, kind reader, will, I am sure, correct and excuse us all.

Wm Brown's
Book